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Virginia MEDICAL MONTHLY

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Annual Meeting
Medical Society of Virginia
Virginia Beach—October 14, 15, 16

April 1946

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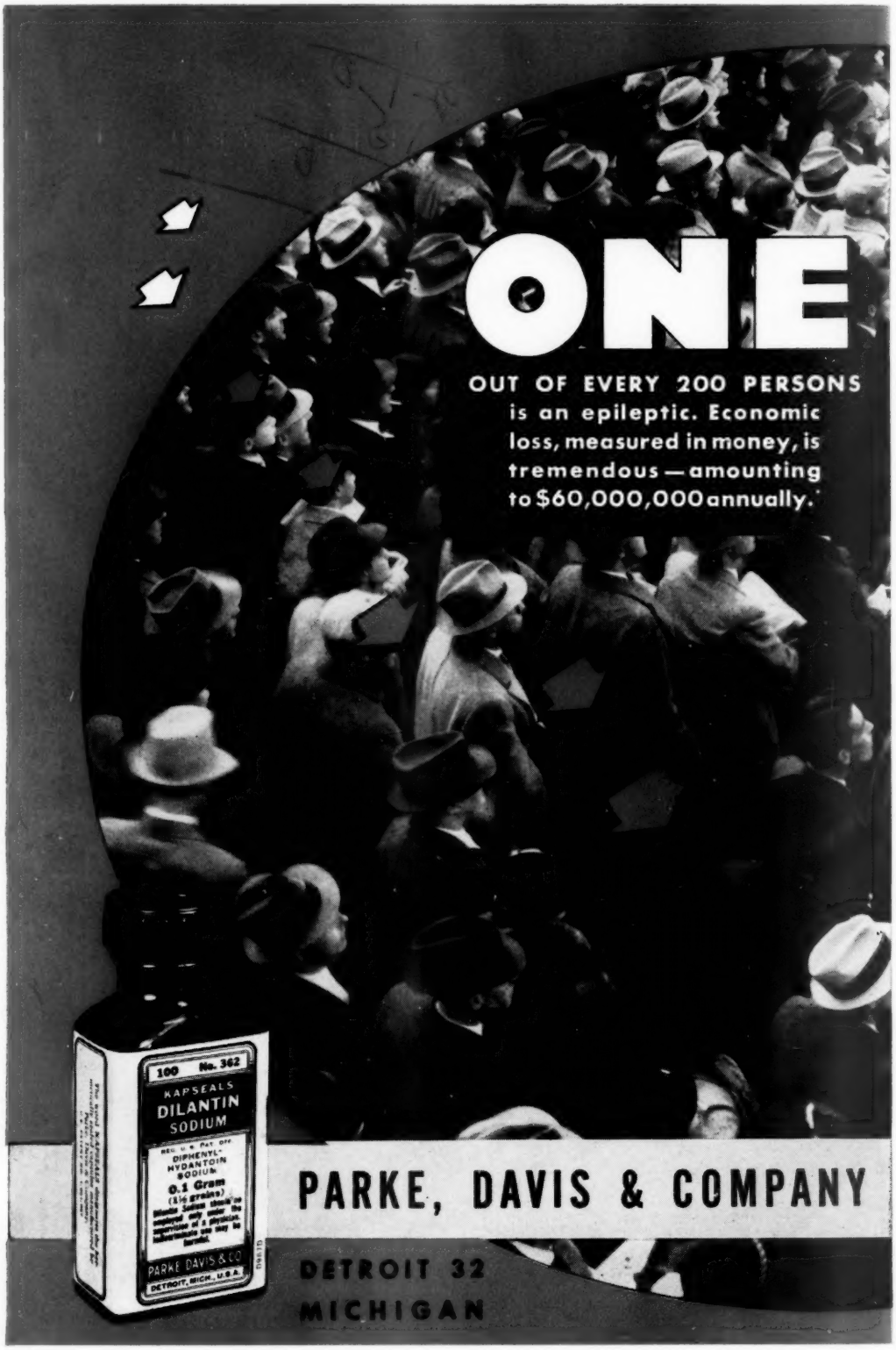
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OUT OF EVERY 200 PERSONS
is an epileptic. Economic loss, measured in money, is tremendous — amounting to $60,000,000 annually.
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Virginia Medical Monthly

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RICHMOND, VA., APRIL, 1946

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Guest Editorial

Immediate Activitiy of the Medical Society of Virginia

IT seems to me that unless something definite is developed on the part of the medical profession which will awaken the doctors in the State from their present apparent state of complacency, we are destined for a violent awakening and possibly a revolution to a degree in our system of the private practice of medicine. This opinion is expressed after considerable thought and after having had the privilege to discuss our problems in detail with representatives of the Central Atlantic States at a Sectional Meeting held in Philadelphia during the month of January.

There is proposed legislation pending in the Congress at Washington with strong political backing which, if passed by Congress, will definitely regiment the private practice of medicine in Virginia and every other State in the Union. It is suggested that because of other more pressing issues these bills may not be enacted into laws. It is, however, a freely expressed opinion among doctors who are concerning themselves with these problems that, even granting that this legislation may not be passed now, the stage is all set to attempt to gain control of the practice of medicine by further legislation which will be consistently proposed.

I feel that the time has arrived when we should make a proper effort to evaluate honestly our problems as they exist today. Few of us will defend our present system of practice as being perfect. It obviously has some weaknesses. We cannot deny that there are people in our country who do not and cannot get proper medical care. As long as this situation exists our antagonists have a strong talking point. The faulty distribution of medical care creates a situation which makes us vulnerable to criticism. Certain rural people in our State cannot get medical care and, if such care could be obtained, it would be at such a great expense as to make it practically prohibitive. A Commission created by our Legislature surveyed this problem during the past year. A report was made to the Legislative Committee, which, if accepted, will at least make a start towards encouraging young doctors to locate in rural communities. It will also insure a more adequate and reasonable medical care for our country people.

The American Medical Association has been criticized by us because that body has suggested no positive progressive plan for a united medical effort to meet our urgent problems. Within recent months the Council of the American Medical Association has indicated a very positive position in this matter and a fourteen-point plan has been produced to cover a united effort on the part of American medicine. Much will be heard about these plans as proposed by the American Medical Association and it certainly will behoove us to give these suggestions careful thought and undivided support if we believe that they are rational.

It is generally agreed that every State should be well covered by a voluntary medical

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care insurance plan. These plans should not only be supported by the medical profession, but they are more effective when created by the State organization and operated under their direction. I feel that the time has passed when we can safely delegate this vital part of our work to outsiders. These plans should be so constructed as to be offered as a coverage to all groups of our people who want coverage or who for any reason cannot get medical care. It is urgently felt that these plans should be so widespread in their coverage as to be made available to the mass of the people in this country who are unable to obtain proper medical care under our present system. The effectiveness of these voluntary insurance plans is exemplified by the operation of effective plans in New Jersey, Michigan and many other states.

I feel that one of our outstanding needs in Virginia today is the necessity of having a vigorous representative to convey to the public the interest and objectives of organized medicine. At the winter meeting of the Council of Medical Society of Virginia, a plan was presented and adopted by the Council to employ a Director for this work. A reasonable budget was established by the Council to carry out this new activity. The Council further authorized the Public Relations and Medical Service Committee to make this selection. The Committee, after interviewing a number of fine candidates, selected Mr. Henry S. Johnson, who is at present a member of the Virginia Legislature representing Fluvanna, Goochland and Louisa Counties, to assume this responsibility, and he has accepted the position. His duties began on March the 15th. It will, of course, require some time for the Director to familiarize himself with all of the duties of this new position. It is planned that he shall visit the various progressive States which have this plan in operation and familiarize himself thoroughly with the outline of the duties of such a position. He will need vigorous support on the part of the medical profession in Virginia to make his work useful. It is hoped that the doctors in the State will give him this support which is so essential.

In the creation of this new position it is understood that the present duties of the personnel in the office of the Medical Society of Virginia will not in any way be interfered with. In all likelihood their duties will be increased as a result of the activities in this newly created position.

Doctors, as a whole, are notoriously negligent in their interest in establishing a proper protection for themselves and their interests. I do not believe that we have properly evaluated the immediate function which our State organization can fulfill for us in these uncertain times. When we consider how little has been our contribution for maintenance through dues for our State Society we must conclude that we could not have expected very much effectiveness from the Society. I know of no way in which we could buy a better protection for ourselves and our interests than by the creation of a sufficient fund in our State organization to insure a proper representation of our interests at all times. This fund will, of course, have to be built around a material increase of our membership dues to the Medical Society of Virginia. Other States have recognized this necessity years ago and our dues are not comparable to the dues of most State organizations.

It is my sincere belief that the welfare of our profession in Virginia is in jeopardy and I think we can afford to give all of the problems of organized medicine our sincere and reasonable support.

J. M. EMMETT, M.D., *Chairman,*
Public Relations and Medical Service Committee,
Medical Society of Virginia.

VENEREAL DISEASE AS SOLDIERS RETURN

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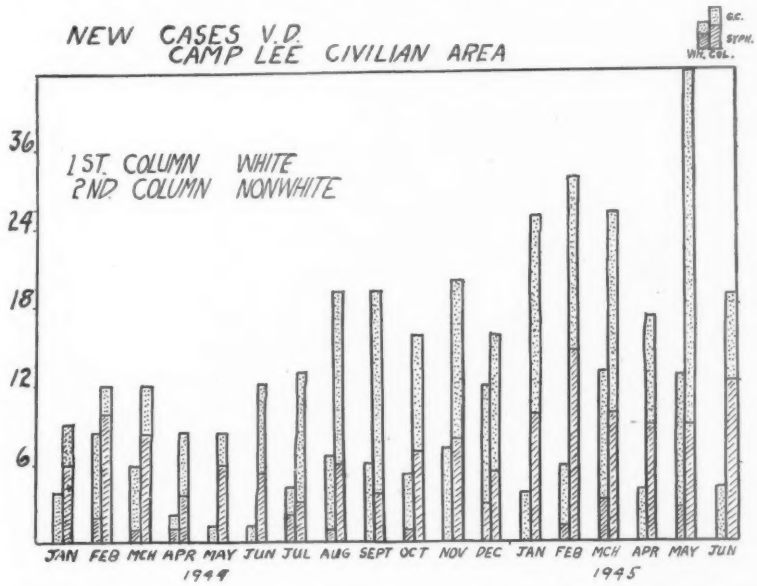
and
W. E. CHAPIN, M.D.,
Venereal Disease Control, Camp Lee Area,
Petersburg, Virginia.

Carrying on a study started in 1942 of venereal disease in Selective Service rejectees (VA. MED. MONTHLY, 70:46, 1943), we now come to another milestone as the soldiers return and are discharged. Since that time the army has taken in a great number of venereal disease cases and given them treatment. At present their avowed policy is not to discharge any personnel until treated past infectiousness. With the large amount of time and money spent on the control of these diseases, the continuance of which is questionable, it is time to come to some conclusions from the facts already obtained. We are therefore reviewing in a small community near a large army camp venereal disease morbidity. Petersburg has a population of approximately 35,000, with 20,000 white and 15,000 nonwhite. It drains typical sized Virginia counties, Dinwiddie, Prince George, and part of Chesterfield. The greater part of Chesterfield drains into the larger city of Richmond nearby.

During the past eighteen months (January '44-July '45) the inflow of trainees has diminished and the number of discharges has increased in more ways than one. The figures in a local civilian clinic show by months a remarkable increase in gonorrhea, with only a slight upward trend in syphilis. The small number of chancroid and granuloma cases are included for purposes of this study with the gonorrhea figures.

Inferences from this chart are: (1) The out-



standing high incidence in the colored race. If the figures were weighed according to population they would be even higher. This is universally true as a recent report from the U. S. Public Health Service shows admission to rapid treatment center to date of 34 per cent white and 64 per cent nonwhite. (2) There is no let up in the number of infections. (3) Infections still occur at the age when promiscuous sexual intercourse is most common. It is now a well recognized fact that promiscuous sexual intercourse is the common origin of venereal disease. There is hardly any use to hush-hush this fact or pretend

that it is not so, as seems to be the attitude of some bodies, especially Church convocations. Knowing the class of people, their age, and the common origin of venereal disease, plus a fair knowledge of how to treat and prevent, it would now seem that we ought to be coming to some workable conclusions.

Any such problem presents a divided responsibility. Unless we can all combine in attacking, our efforts are halting to say the least. Public opinion, the schools, health department, courts, police, church and all interested social agencies have a definite duty. The health department is more than willing to cooperate with all these agencies, and already drives are being made to get public opinion on our side. Next come schools. Public schools have an avowed interest in a general health program. Some states are already passing acts whereby all school districts shall provide health instruction and physical education (i.e., Oregon State House Bill No. 53). But with the present feeling it hardly seems necessary until public opinion is plainly on our side. Under any such general program, a survey of the conditions will rapidly confirm what our figures show: that nonwhite children finishing school are almost immediately infected with venereal disease in entirely too high a percentage of cases. It doesn't make any difference what you teach, if the child is going to die of syphilis of the brain or heart. We owe to every such child in the secondary schools of this State that they do not leave school before they are well acquainted with the following simple facts:

What is venereal disease?
Who has it?
How you get it?
How you get well?
How you keep from getting it?

We like a simple plan. We have tried it with patients and their contacts with these diseases. It clarifies the facts in their minds. This might be a final test for older school children, while the information could be given in the form of graphs, history of blindness, figures of morbidity and from insane asylums. This may be done by brief selected articles on the principal venereal diseases (*Health Bulletin, Va. State Health Dept.*, 9, July, 1945) or discussion groups led by a guidance leader, as well as by a number of other routes.

In conclusion, in venereal disease we are faced with the fact that, if they trust moral laws, "they shall indeed know the truth, and the truth shall make them free". Still, how are they to trust, if they have not believed? How are they to believe if they have never heard? How are they to hear unless someone teaches them? And how are men to teach unless they are sent to do it?

Floral Eponym (37)

DRAKEBROCKMANIA

LIEUTENANT-COLONEL RALPH EVELYN DRAKE-BROCKMAN, D.S.O. 1875—

Colonel Drake-Brockman was born in England in 1875. He specialized in tropical diseases and served as Medical Officer to the troops in the interior of Somaliland from 1904 to 1915, including three campaigns against the Mad Mullah. In World War I he commanded the 150th and 95th British Field Ambulances. There is a genus of grass named for him and in 1937 Alaine White and Boyd L. Sloane erected the genus Drakebrockmania in the milk weed family for him.

BIOLOGIC FALSE POSITIVE SEROLOGIC TESTS FOR SYPHILIS: A STUDY OF 100 CASES

SIDNEY G. PAGE, JR., M.D.*
Richmond, Virginia.
and
LEONARD L. HEIMOFF, M.D.†
New York, N. Y.

In recent years the widespread use of serologic tests for syphilis premaritally as well as in the testing of many thousands of civilian blood donors has focused attention on the importance of detecting biologic false positive serologic tests for syphilis.

Many diseases are known to produce biologic false positive serologic tests for syphilis.[1] Yaws, malaria, pinta,[2] leprosy,[3] infectious mononucleosis, and virus pneumonia produce a high percentage of these false positive tests. Kolmer[1] lists 30 other causes, including upper respiratory infections, active tuberculosis, rheumatic fever, diabetes mellitus, rat-bite fever, psoriasis, leukemia, coronary thrombosis and eclampsia.

Favorite[4] called attention to the occurrence of this phenomenon in smallpox vaccination (vaccinia) describing false positive reactions by the Kolmer, Kahn or Mazzini tests for syphilis in 11.8 per cent of 202 subjects after smallpox vaccination. One of us (L. H.[5]) reported 8 cases of tetanus toxoid inoculations producing false positive Kahn tests.

Eagle[6] in 1941 found biologic false positive serologic tests for syphilis in 1 out of 4,000 normal individuals. In the same year Moore, Eagle and Mohr reported nine normal individuals in whom biologic false positive serologic tests for syphilis were found and suggested a method of clinical study of such cases.[7]

This report covers 100 patients at a Station Hospital observed during the period May, 1943-January, 1945, who exhibited doubtful or positive serologic tests for syphilis (see Table I). Ninety-nine were soldiers and one was a civilian. In 92 instances, the original doubtful or positive test was detected when the routine serologic test for syphilis was performed on the hospitalized patient, while eight instances of false positives were revealed at the time of a premarital blood test. In all cases, as soon as a doubtful or positive test was obtained for the first time, the patient was seen by the Venereal Disease Control Officer who obtained a complete history and performed a physical examination to rule out the presence of syphilis. None of the individuals in this series received any anti-luetic therapy either before or after coming under observation.

In 13 of these 100 patients, it was possible to make a complete examination (including serologic test for syphilis) of the marital or sexual partner and no evidence of syphilis was found. All of the tests were performed in the Station Hospital laboratory which is checked for accuracy at frequent intervals

TABLE I

	No. of Cases	Average No. of days required for tests to become negative following the first doubtful or positive test: Kahn	Wassermann
Group A—*Those caused by Diseases*			
1. *Respiratory Diseases*			
a. Nasopharyngitis	20	19.3	16.
b. Primary Atypical Pneumonia	8	40.37	33.4
c Lobar Pneumonia	3	26.33	5.
d. Tonsillitis	4	21.	3.
e. Bronchitis	2	49.5	---
f. Laryngitis	2	14.	---
g. Sinusitis	1	8.	---
Total	40		
2. *Infectious Diseases*			
a. Measles	2	23.	---
b. Mumps	5	21.2	18.
c. Chicken Pox	1	21.	---
d. Infectious Mononucleosis	1	6.	---
Total	9		
3. *Other Febrile Diseases*			
a. Malaria	20	12.75	8.8
b. Adenitis	1	47.	43.
c. Lymphopathia Venereum	1	13.	---
Total	22		

*Instructor in Medicine, Medical College of Virginia; formerly Major, Medical Corps, AUS.

†Formerly Major, Medical Corps, AUS; Venereal Disease Control Officer, Fort George G. Meade, Maryland.

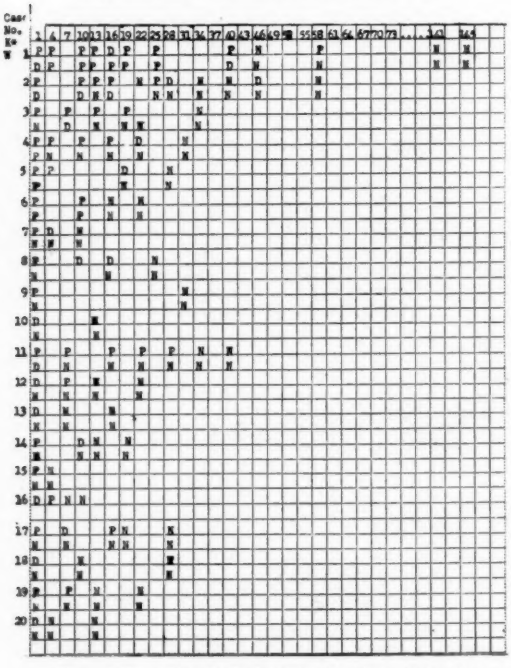
Group B—*Those caused by Recent Immunizations*

1. Tetanus Toxoid	17	23.58	---
2. Smallpox Vaccination	2	13.	---
3. Combination (Tetanus Toxoid and Smallpox)	10	12.4	5.
Total	29		
GRAND TOTAL CASES	100		

by the Division of Serology, Army Medical School, Army Medical Center, Washington, D. C. In addition, many corroborative tests* were performed on samples sent to the Army Medical School on cases listed in this series. The blood tests (both Kahn and Wassermann) in these 100 cases were repeated at intervals (see Tables II, III, and IV) until both the Kahn and Wassermann became negative.

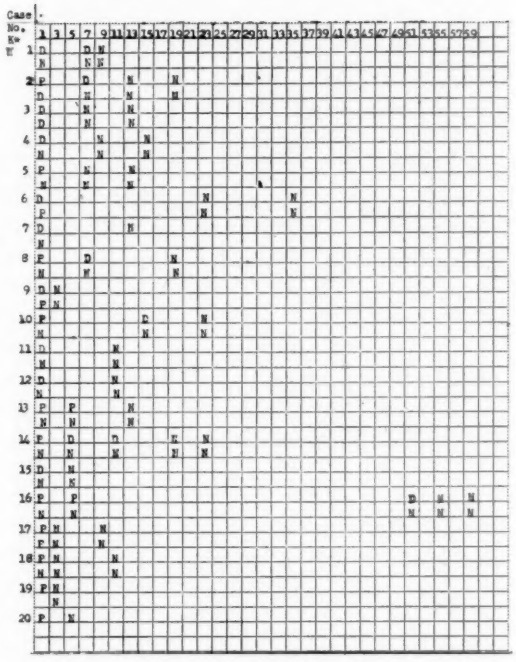
The period of time between the finding of doubtful or positive tests and the return to negativity varied to a great degree. The average number of days required for the blood test to change from positive to negative have been listed in Table I. Some cases required 30 or more days to become negative (see Table II, Cases 1 and 11) while others changed from positive to negative within a matter of ten or twenty days (see Table II, Cases 6, 7, and 14). There are several reasons why no definite conclusions can be drawn from these figures:—(1) It was impossible to determine the length of time the test had been positive prior to its first detection on routine examination. (2) The original positive or doubtful blood test was obtained routinely at a varying length of time after the patient was first taken sick. (3) The time interval between blood tests in the different individuals varied widely. In some cases, tests were performed every three or four days; in others, there were intervals of weeks between tests. It was obviously impossible to arrive at accurate figures for incidence of these biologic false positive tests in the different conditions listed

TABLE II—NASOPHARYNGITIS
Days following initial doubtful or positive tests.



*The results of the serologic tests (top line—Kahn, bottom line—Wass.) are reproduced opposite the number of each case.

TABLE III—MALARIA
Days following initial doubtful or positive test.



*The results of the serologic tests (top line—Kahn, bottom line, Wass.) are reproduced opposite the number of each case.

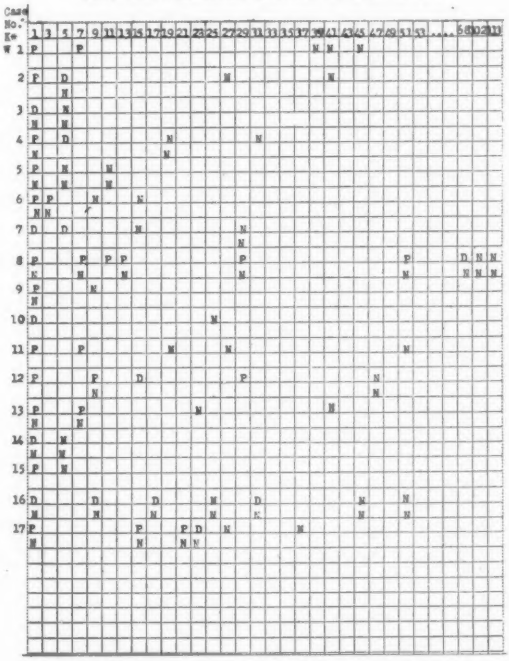
*In 22 instances, samples of blood taken at the same time were tested by the Division of Serology, Army Medical School, and our results were confirmed in all except one case in which our laboratory reported Kahn doubtful, Wassermann positive, while the Army Medical School found Kahn positive, Wassermann positive.

among these 100 cases. Thousands of soldiers were immunized but only a small proportion of these had serologic tests made. In the hospitalized cases (respiratory diseases, malaria, mumps, etc.) if the first routine serologic test (Kahn) was negative, it was not repeated and therefore some cases were missed in which the reagin titer had not risen sufficiently at the time to produce a doubtful or positive test.

In the several instances in which Kahn quantitative tests were performed the reagin titer was found to be below 100 units.

Loveman[13] stated that fluctuating stages of positivity and negativity are rarely seen in false positive reactors. Rein[14] disagreed, stating that "it is not uncommon to observe fluctuations of serologic titer in false positive reactors". Eleven cases in this series (11.0 per cent) showed fluctuations in their reaction (see Table V).

TABLE IV—TETANUS TOXOID INOCULATIONS
Days following initial doubtful or positive test.



*The results of the serologic tests (top line—Kahn, bottom line, Wass.) are reproduced opposite the number of each case.

The 100 cases have been arbitrarily divided into two groups:

Group A—Those Caused by Diseases.

Group B—Those Caused by Immunizations.

TABLE V
FLUCTUATIONS

	Kahns
1. Nasopharyngitis	P D P P N P N
2. Nasopharyngitis	P N P D N D N
3. Primary Atypical Pneumonia	P D P P D D N
4. Primary Atypical Pneumonia	P P P D P N
5. Bronchitis	D P D P N
6. Bronchitis	P D D P N
7. Adenitis	P N P N D N P N
8. Tetanus Toxoid	P D P N
9. Combination; Tetanus Toxoid and Smallpox Vaccination	P P P P N D N
	Wassermann
10. Nasopharyngitis	D D N D N
11. Combination; Tetanus Toxoid and Smallpox Vaccination	N D N N N N N

Group A is further subdivided into Respiratory Diseases, Infectious Diseases and Other Febrile Diseases.

Group A—*Those Caused by Diseases.*

1. *Respiratory Diseases.*

This group comprised 40 cases, including 20 cases nasopharyngitis (see Table II), 8 primary atypical pneumonia, 3 lobar pneumonia, 4 tonsillitis, 2 bronchitis, 2 laryngitis, and 1 sinusitis.

a. *Nasopharyngitis.*

Although there are many references in the literature concerning the occurrence of biologic false positive serologic tests for syphilis in febrile diseases there are no reports, as far as the authors know, in which this phenomenon is described in nasopharyngitis *per se*. The importance of such a benign yet widespread condition as nasopharyngitis (common cold) causing false positive tests is obvious. Its occurrence in twenty of these one hundred cases may cause one to speculate on the possibility that the common cold might have been the etiological agent in many cases reported in the literature. For example, Kolmer[1] lists, among others, the following conditions in which may be found false positive reactions:—rheumatic fever, leukemia, pellagra, psoriasis, coronary thrombosis, diabetes mellitus, eclampsia, lead poisoning, acute alcoholism, ether anesthesia, sulfonamide therapy and serum therapy. Is it not possible that in many of the above named conditions, the presence of a concomitant common cold might have been the cause of the biologic false positive serologic tests?

b. *Primary Atypical Pneumonia.*

The following case illustrates the typical series of events encountered in the group of virus pneumonias:

A 34-year-old white soldier was admitted to the hospital with a history of having had gradual onset of a severe upper respiratory infection for seven days prior to admission, with a hoarse, non-productive cough, sore throat, and some chest pain on the right side. Physical examination on admission revealed an inflamed throat, dullness to percussion and medium moist rales in the right lower chest posteriorly. An X-ray of the chest confirmed the clinical findings of primary atypical pneumonia in the right lower lobe. The serologic tests are listed below:

Hospital Days	1	7	19	21	27	35	43	51	56	61
Kahn	P	P	D	P	P	D	D	N	N	N
Wassermann		P	P	P	P	P	P	P		N

2. *Infectious Diseases.*

This group included 2 cases of measles, 5 of mumps, and 1 each of chicken-pox and infectious mononucleosis.

a. *Infectious Mononucleosis.*

Kolmer[1] in a review of the literature has found the incidence of false positive reactions in infectious mononucleosis varying from none to 100 per cent with an average of 7.3 per cent doubtful or positive complement-fixation reactions in 202 cases and 9.6 per cent doubtful or positive flocculation reactions in 157 cases. One patient (5.3 per cent) of a series of 19 soldiers with infectious mononucleosis seen at this hospital during the past 18 months demonstrated biologic false positive serologic tests for syphilis using the Kahn flocculation test.

3. *Other Febrile Diseases.*

This group comprised 20 cases of malaria (see Table I), and one each of adenitis and lymphopathia venereum.

a. *Malaria.*

Rosenberg[8] called attention to a pattern of positivity of serologic tests in malaria strongly suggestive of biologic false positive. He finds that in malaria positive Kahn and Mazzini tests, doubtful Kolmer and Kline tests, and negative Eagle and Hinton tests can usually be differentiated from that pattern of tests found in syphilis.

In the 20 cases of recurrent vivax malaria (see Table III) all had doubtful or positive Kahns while five were found to show either a doubtful or positive Wassermann. Rosenberg quoted figures from the literature showing percentages of complement-fixation tests ranging from 8.6 to 20.6 per cent.

Potter[15] and his co-workers found 12. per cent positive reactions (using Kahn and Wassermann tests) and 10. per cent doubtful reactions among 100 consecutive recurrent malaria cases. Within thirty days all of these positive and doubtful reactions had become negative. This parallels the return to negative in the 20 cases of malaria in this series (see Table III) with one exception (Case 16).

b. *Adenitis.*

Cases of inguinal adenitis with fever and positive serologic tests might easily tempt the physician to make a diagnosis of syphilis or lymphopathia venereum. This emphasizes the importance of "watchful waiting" while repeating the serologic tests before beginning anti-luetic therapy.

One of our cases illustrated this point. Frei tests were negative on two occasions and the enlarged inguinal glands did not suppurate. Meanwhile the serologic tests became negative. It was felt that this was a case of non-specific, inguinal adenitis producing a biologic false positive serologic test. It must be kept in mind that lymphopathia venereum may produce a biologic false positive serologic test for syphilis.

Group B—*Those Caused by Recent Immunizations.*

Barnard[9] in 1940 reported the first case of false positive serologic test for syphilis following smallpox vaccination.

Lynch, Boynton and Kimball,[10] using the Kline, Kolmer, Mazzini and Hinton tests, found false doubtful or positive reactions occurring in 16.0 per cent or 263 persons studied after primary vaccinia. Favorite,[4] using the same tests, obtained an incidence of 11.8 per cent in his 202 cases.

In the series reported by Arthur and Hale[11] in which they found 14.8 per cent of 94 soldiers showed false positive tests, the routine Army immunizations included smallpox, typhoid, tetanus and yellow fever and were given within so short a period of time that it is impossible to ascertain which test or tests produced the false positives. Our experience indicates that typhoid and yellow fever immunizations do not cause false positives.

In all three of the above series[4, 10, 11] serologic tests were performed at irregular intervals and in one series[10] many of the cases were tested only on one occasion following vaccination. Had daily tests been performed for two to six weeks, it is very likely

that the percentage of positives would have been considerably higher.

In this series (see Table I) seventeen instances of tetanus toxoid were included (having received no other immunizations or vaccines for two months prior to the tetanus toxoid), two instances of smallpox vaccination (who received no other immunization for two months prior to the vaccination) and ten instances in which the person received both tetanus toxoid and smallpox vaccination the same day or a few days apart. These last ten cases were listed as "combination".

Until recently smallpox vaccinations were thought to be the only commonly used immunizing process which might lead to the production of a biologic false positive serologic test for syphilis. The authors present, in addition to two cases of smallpox vaccination causing biologic false positive serologic tests, 17 cases of this phenomenon produced by immunizations with tetanus toxoid. This is contrary to the findings of Favorite[4] who stated that biologic false positive serologic tests are not found in persons recently immunized with tetanus toxoid. In the 17 cases of tetanus toxoid included in our series, other factors such as nasopharyngitis or other respiratory diseases, the presence of which might also produce a biologic false positive, were excluded. (Only those cases which received tetanus toxoid immunizations alone were included in these 17 cases.) All other cases receiving multiple immunizations such as smallpox and tetanus toxoid at or about the same time were included in a group which we have designated as Combination.

The following case history illustrates the typical transiently positive serologic tests encountered in this group:

CASE 8—TABLE IV

This patient was first seen on February 8, 1944, when he presented himself for a premarital physical examination and blood test. At that time, a positive Kahn and a negative Wassermann were found. History and physical examination were negative for syphilis. Past history revealed that the patient had had a ½ cc. "booster" dose of tetanus toxoid on 1 February 1944. In order to rule out the possibility of asymptomatic neuro-syphilis, a spinal puncture was performed February, 1944, and was found to be completely negative. Blood tests were performed at frequent intervals (see Case 8, Table IV). Dr. Harry Eagle, in Baltimore, found the Kahn positive and the Eagle negative. It was Dr. Eagle's opinion that this was a biologic false positive serologic test. On 17 February 1944, the Army Medical School used a battery of serologic tests (see Table VI). The opinion at that time was that it represented an inconclusive type of reaction. On 22 March 1944, tests at the Army Medical School revealed definite diminution in titer of all the tests and verification of the fact that this was a biologic false type of reaction.

TABLE VI

Case 8—Group IV—Army Medical School Serology Laboratory

Tests	*17 Feb. 1944*	*22 Mar. 1944*
Kline Diagnostic	+ 32 Units	1, 2 Units
Kline Exclusion	+ 64 Units	2 Units
Boerner-Jones Lukens	+ 32 Units	2 Units
Mazzini	+ 32 Units	1 Unit
Kahn	+ 443	Contaminated
Kolmer	+ 3	Negative
Conclusion	Inconclusive type of reaction.	Thought to be biologic false positive.

		17 Feb. 1944
U. S. Public Health Service	Mazzini	Positive
Syphilis Research Center	Wassermann	Positive
Johns Hopkins University	Kahn	Positive
	Eagle	Negative

HOW TO DEAL WITH CASES OF SUSPECTED BIOLOGIC FALSE POSITIVE SEROLOGIC TESTS FOR SYPHILIS

1. Take a careful history for syphilis. Ascertain if there has been any preceding or current upper respiratory infection or recent immunization.

Certain precautions must be taken—familiar terminology must be used. The patient may not be familiar with such terms as chancre, primary "sore", syphilis, lues, positive serology, Wassermann test, "neo", mapharsen, bismuth and anti-luetic therapy. But, on the other hand, he may very well be familiar with such well known synonyms as "bad blood", "hair cut", "hip shots" and "arm shots", "606 shots".

In patients denying anti-luetic therapy, in whom it is suspected that the patient is prevaricating, an X-ray of the soft tissues of the buttocks may reveal the presence of bismuth deposits.

The family and marital histories are most important. Recent sexual exposures under certain condi-

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tions may be presumptive evidence in favor of syphilis until proven otherwise.

A history of recent febrile disease with particular attention to malaria, infectious mononucleosis, respiratory tract infections and contagious diseases, as well as other virus diseases would be contributory evidence.

2. Make a careful physical examination.

The physical stigmata of congenital lues must be looked for. Penile scars as well as lymphadenopathy, particularly of the cervical, axillary, inguinal and epitrochlear groups, point strongly to the diagnosis of syphilis.

3. Examine the blood for malaria and infectious mononucleosis by blood smears and heterophile agglutination tests.

Repeated thick smears for malaria must be obtained. Reports in the literature with figures as high as 100 per cent of malaria cases with transiently positive serologic tests for syphilis have been noted. The transiently positive serologic tests for syphilis, seen in malaria cases, may require 2 to 12 weeks to return to negative.

Infectious mononucleosis has been reported to give biologic false positive serologic tests for syphilis in from 4 to 20 per cent of the cases. The Paul-Bunnell heterophile anti-body test (which is positive in 75-80 per cent of the cases of infectious mononucleosis) may help in the differential diagnosis. Quantitative titration of the flocculation test is of value in differentiating syphilis as the cause of the positive serologic test.

4. Repeat the serologic test at intervals and if possible use a quantitative flocculation test as the titer is of diagnostic importance. If these cases are followed by serial complement-fixation and flocculation tests, it will be found that in the biologic false positive cases the titer will be fairly low, usually not exceeding 60-100 units and will show a tendency on repeated tests to become lower in titer pointing towards a negative result. However, in the case of syphilis, the titer may be, and is usually, high in the early stages—often exceeding 100 units or more. In syphilis, the titer tends to rise for a period of many months and remain at high levels of 200-300 units, whereas in the biologic false positive case the titer usually drops to a very low figure (5-50 units) within a period of 2 to 12 weeks.

5. Verification tests. According to Rein and Callender,[12] the verification tests in the serodiagnosis of syphilis are of questionable value and until a reliable verification test is developed such verification procedures should not be used routinely by the average serologist.

SUMMARY

1. One hundred cases of biologic false positive serologic tests for syphilis are listed.

2. The conditions responsible for these false tests may be divided into two major groups: Group A—Those Caused by Diseases (Respiratory, Infectious and Other Febrile Diseases). Group B—Those Caused by Immunizations (Tetanus Toxoid, Smallpox, and Combination of both Tetanus Toxoid and Smallpox Vaccinations).

3. Typical case histories are cited.

4. The importance of recognizing this condition is stressed.

5. Suggested procedures to be followed in dealing with suspected biologic false positive serologic tests for syphilis are listed.

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Journal Condemns New Names for Penicillin Products.

In an editorial titled "Silly Names for Penicillin Products," *The Journal of the American Medical Association* says in its February 2 issue that "leaders in the drug and chemical industries, apparently avid for the kind of profits that can be derived from well-exploited medical specialties, have let their imaginations and their greed run riot in a search for specific trade names to designate some penicillin products."

The editorial says that the name "penicillin," which truly reflects the source of the product, was deliberately chosen as a descriptive title. The modesty of the investigators led them to avoid using their proper names as the title of the product.

"Instead of selling penicillin under its simple and well known name," the editorial says, "they (the manufacturers) have become downright silly and offer penicillin under so many names that only a professional solver of cross-word puzzles could guess the nature of the products that these names conceal."

Some of the new penicillin names which the editorial listed were: Amphocillin, Penioral, Bucillin, Topicillin, Delacillin, Ledercillin-G, and Per-Os-Cillin.

"Some of these are for oral use," *The Journal* says, "some for local application, one is to be mixed 'before taking' with something else. The promulgators of these products and their sale are interested in helping their own pocketbooks by trying to make certain that the prescribing physician will limit himself to their products. One manufacturer naively combines his firm name with 'cillin.' There are more than 20 manufacturers. . . .

"But who could guess that Amphocillin and Bucillin refer to penicillin for oral use? Who can believe that Delacillin is really penicillin calcium in peanut oil and beeswax? You might surmise the nature of Ledercillin-G, but we will lay eight to five that would miss on Penioral. Would you think it useful especially for gonorrhea? Well, that isn't it. Then what about Per-Os-Cillin? Something concerned with an opening, but which one?

"Some day scientific aims and business promotion will be more closely knit. When that day arrives every one will breathe a sigh of relief, including the promoters. Perhaps they will finally realize that a scientific approach gains the confidence of the prospective buyers and really promotes use. Until then, time marches on."

Schering Increases Field Staff.

Schering Corporation of Bloomfield and Union, New Jersey, manufacturers of endocrine and pharmaceutical preparations for the medical profession, recently announced the addition of nine new representatives to its Professional Service Staff. In keeping with the present Schering policy of expansion, the new Professional Service Representatives have been assigned to various territories throughout the country.

XUM

A MINOR EPIDEMIC OF SALMONELLA INFECTION*

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and
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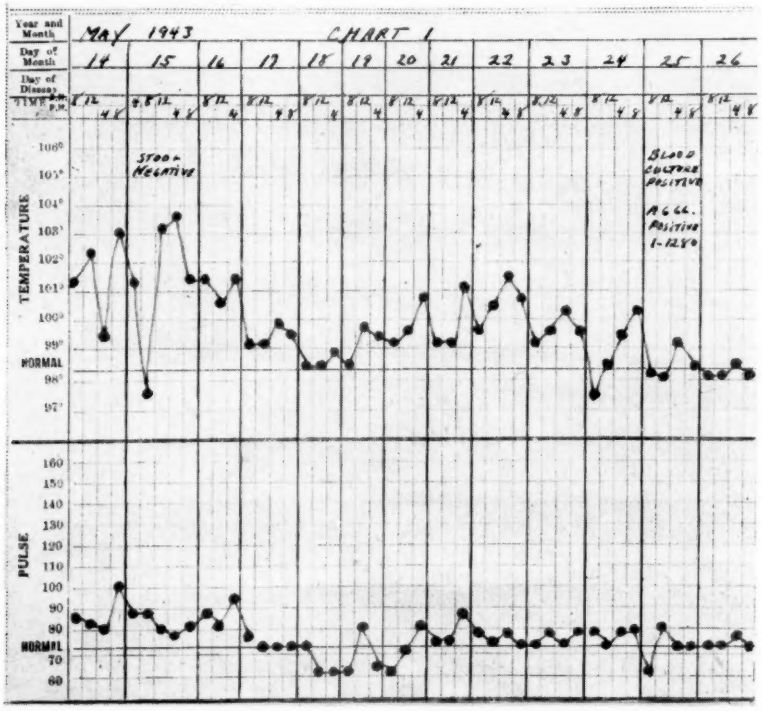
During the day of 13 May, 1943, the Officer of the Day was called to see some forty members of our personnel. Those observed in the late morning and afternoon presented such variable pictures that the true nature of the situation was not at first apparent. By 2100 hours, however, it became clear that we were dealing with a minor epidemic of some type of gastro-intestinal infection.



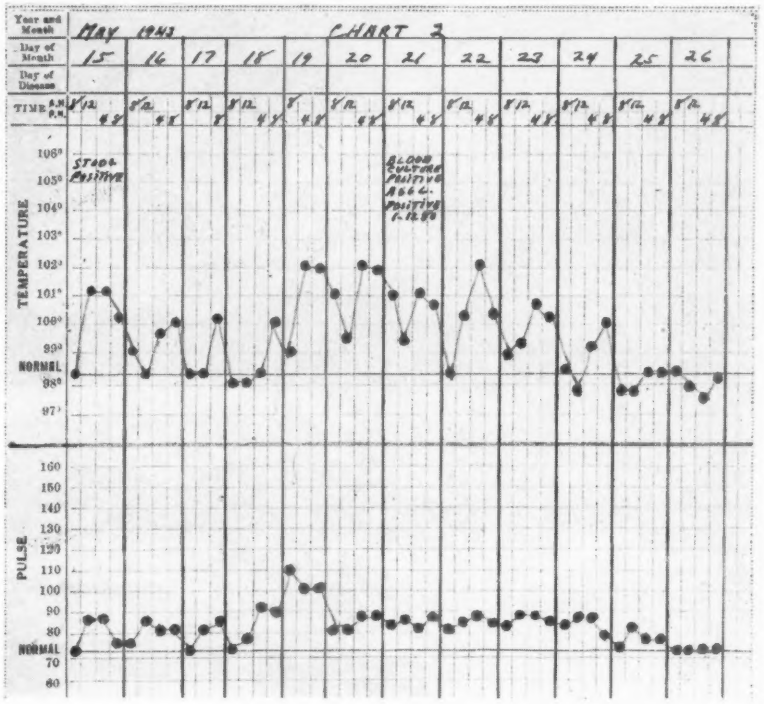
Case No. I.—13 May during day felt sluggish and tired. Ate usual lunch. Later began to have generalized cramps in abdomen, with 4 or 5 loose watery stools. Ate no supper. About 2200 became chilly, followed by headache and feeling of depression. Temp. 102. Bowels moved naturally during the night. Admitted 14 May at 0930. P.E. Negative. Urine normal. Smear for malaria negative. Stool negative, 15 May. Blood culture positive for Salmonella organism and agglutination 1-1280, 25 May. Note tendency for fever run in two peaks, first the stage of intoxication, second the stage of invasion.

The predominating symptoms and signs were chills or chilliness, fever or feverishness, general malaise, generalized abdominal cramping pain, diarrhea (frequently involuntary), frontal headache, and prostration. Nausea was present in many and vomiting in a good number; several complained only of chills, fever, and malaise; in two, photophobia of annoying degree accompanied the severe frontal headache; two officers were noticeably drowsy and sluggish; an odd complaint in one patient was a feeling of soreness of the jaws and teeth on biting. During the next few days it was necessary to hospitalize thirteen officers, fourteen nurses, and three enlisted men—a total of thirty. A personal interview with all officers, nurses, dietitians, physical therapy aides, Red Cross workers, and selected enlisted men showed that a total of

*Report Completed 15 August, 1943.

forty-five were similarly affected to some degree.

On admission the temperature varied from 100° to 104°. Physical examination was negative except for a material degree of drowsiness in several, and generalized abdominal tenderness and gurgling in most cases. One patient had a very definitely palpable hard non-tender spleen on first day of illness. (This remained unchanged throughout his stay in the hospital and during observation for several weeks thereafter.) In the Laboratory the white blood count varied from 5500 to 22000, with 60 to 80 per cent polys. A leukopenia was not recorded. The urine was normal. In two patients X-ray of the chest was negative. Since we did not at first realize the true nature of the problem, bacteriological studies were not made in all cases; in twenty-two so studied, stool culture, blood culture, or blood agglutination tests demonstrated Salmonella oranienburg (see bacteriological section below).



Case No. II.—13 May in P.M. patient began to have abdominal cramps and profuse watery diarrhea. This continued through night, associated with nausea. 14 May diarrhea persisted, felt weak and tired. Could take only fluids. Became chilly and then feverish. Admitted 15 May at 0830. P.E. negative except for generally tender abdomen with considerable gurgling. WBC 5800, polys. 56, lyms. 40, eos. 4. Smear for malaria negative. X-ray chest negative. Stool culture positive for Salmonella organism. Again note tendency for temperature to run in two peaks. Blood culture positive 21 May. Agglutination 1-1280, May 21.

TREATMENT AND COURSE

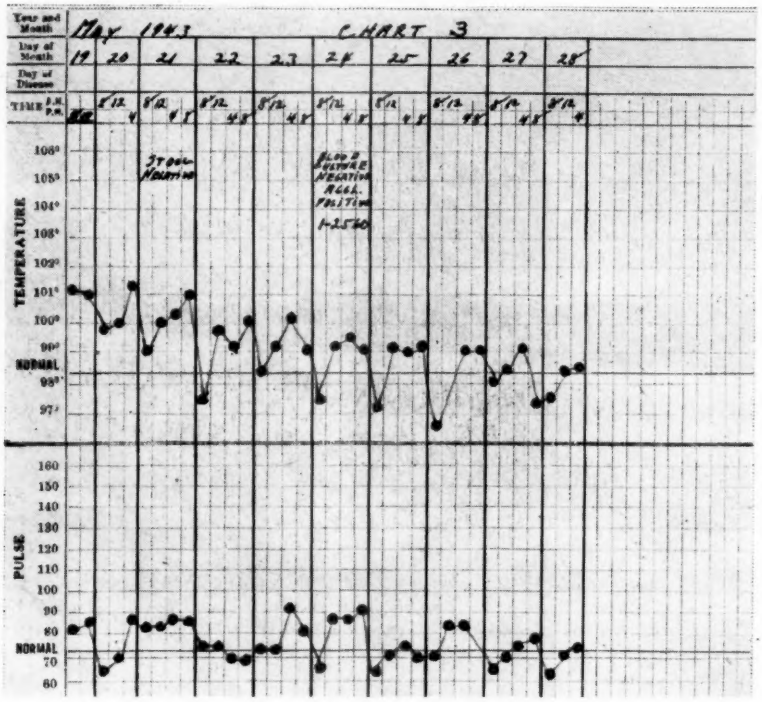
No specific therapy was undertaken routinely. Treatment was symptomatic. One patient received sulfadiazine in full doses under the mistaken diagnosis of lobar pneumonia. This did not seem to affect his course. One case required repeated intravenous fluids because of protracted nausea and vomiting. In general, the course was gradual recovery with temperature falling by lysis. There was a tendency for the temperature to show two peaks in some cases. The average hospital stay was three to five days, one patient requiring seventeen days. The prostration and weakness which followed clinical recovery was very noticeable in the more severe cases, where also there was marked weight loss, a drop of thirty pounds being recorded in one

officer.

A disturbing question was that of the development of the carrier state. During June and July one officer (Case No. VII) had mild relapses of gastro-intestinal upset similar to that experienced at first. During these relapses and since clinical recovery (a period of 3 months), his stools have continued to show almost pure cultures of Salmonella oranienburg. Cultures of bile obtained by transduodenal

SOURCE OF INFECTION

The acute affection of so large a number of the same organization, with a picture predominantly that of gastro-intestinal infection, naturally led to the investigation of the food and water supply as the possible source of this infection. Of the total personnel messing here at the time, only officers, nurses, and three enlisted men were sick. Since the water supply was everywhere the same, it appeared



Case No. III.—13 May in P.M. abdomen felt full and tender. Had several loose stools. During next several days felt tired and achy. Diarrhea came and went. At times felt feverish, temperature not recorded. 18 May in P.M. felt very chilly, followed by feverishness and malaise. Admitted 19 May 1830, 5 days after onset. P.E. negative except borborygmus. WBC 7700, polys. 64, lym. 36. Smear for malaria negative. Stool culture negative for Salmonella 21 May. Blood culture also negative 24 May. Agglutination positive 1-2560, 24 May. It seems probable that first peak of temperature, or toxic stage, occurred prior to admission.

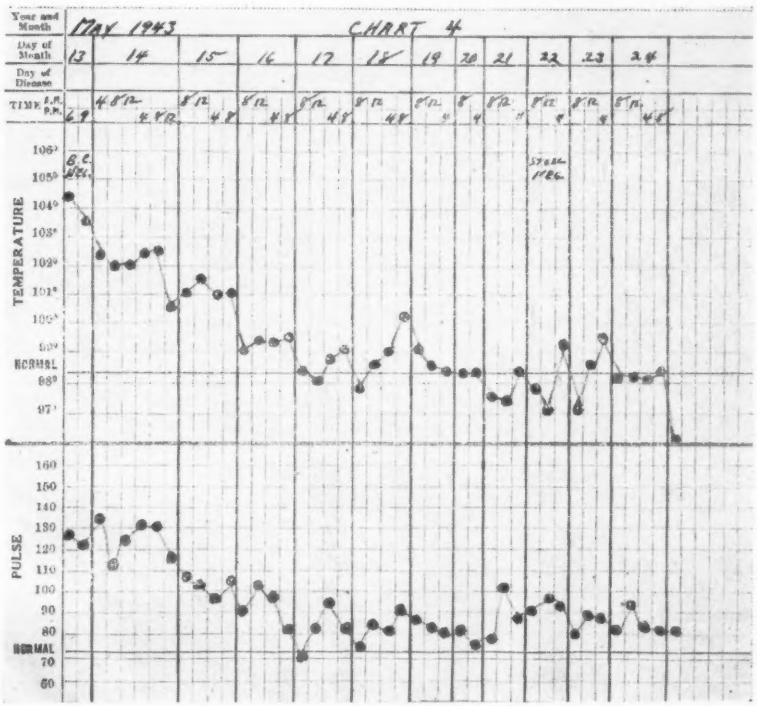
biliary drainage have been positive for this same organism. His cholecystogram has been negative. This case may be classified as a gall bladder or hepatic duct carrier. Another patient, a nurse, ran a similar course, with positive stool cultures throughout June and until 22 July, since which they have been repeatedly negative. She may be considered as a temporary intestinal carrier. In neither case did sulfaguanidine or sulfadiazine in full doses have any noticeable effect.

that this could be eliminated, and our attention was turned to the officers' mess. This mess is operated separately from those of the detachment and the patients. By personal interview it was found that, with few exceptions, all ate breakfast and lunch in this mess on 12 May, 1943, the day before the clinical outbreak; on the other hand, seventy-four (74) did not eat supper here on the night of 12 May. Of this number only one was similarly affected to a mild degree some four days later. Of

ninety-eight (98) who ate this supper, forty-two (42) were sick. Also, the three sick enlisted men had returned late from an assignment elsewhere and had been fed from the officers' mess on night of 12 May.

Further investigation of this meal was carried out by L. T. Stoneburner, Captain, M. C. It consisted of chili, string beans, pickles, peanut butter, cocoa, bread, and rice pudding. The chili, string beans, and cocoa were freshly prepared and served Red Cross workers, and the three sick enlisted men were served from the fourth pan.

The 101 persons who ate this meal were questioned personally as to what foods they ate and the following data accumulated: 45 per cent of those eating bread (100) were sick; 48 per cent of those eating peanut butter (93) were affected; 45 per cent of those drinking cocoa (99) were ill; 50 per cent of those eating pickle (95) were sick; 54 per cent



Case No. IV.—13 May in A.M. had vague abdominal discomfort. Bowels moved normally. During next several hours became very chilly and had severe headache and backache. No other gastro-intestinal, respiratory or genito-urinary symptoms. Admitted at 1700. P.E. Temperature 104, no other findings. WBC 21,900, polys. 88, lym. 12. X-ray of chest showed questionable increased density at 7th rib level on right. Sputum obtained with difficulty, negative for pneumococci. With suspicion of early lobar pneumonia sulfadiazine was given in usual doses. In next 2 days developed marked nausea, vomiting and diarrhea. Stool negative for Salmonella, 22 May. On 10 June, 28 days after onset, agglutination positive 1-1280. Note confusion with pulmonary infection.

hot. The peanut butter and pickles had been freshly opened. The bread had just been sliced. The rice pudding had been made up in bulk the night before, i.e., night of 11 May, 1943, about 11:30 P. M. and set aside in four large pans, in which it sat for the following seventeen (17) hours without refrigeration, not then available. The other messes were served from three of these pans, whereas all officers, nurses, dietitians, physical therapy aides, of those eating string beans (84) were affected; 55 per cent of those taking chili (82) became ill; and 57 per cent of those eating rise pudding (79) were sick. Of twenty-one (21) who ate no rice pudding, none was sick. Furthermore, among those affected none failed to eat rice pudding, whereas at least one or more did not eat one, or more, of the other items.

As is usual in such circumstances, none of the

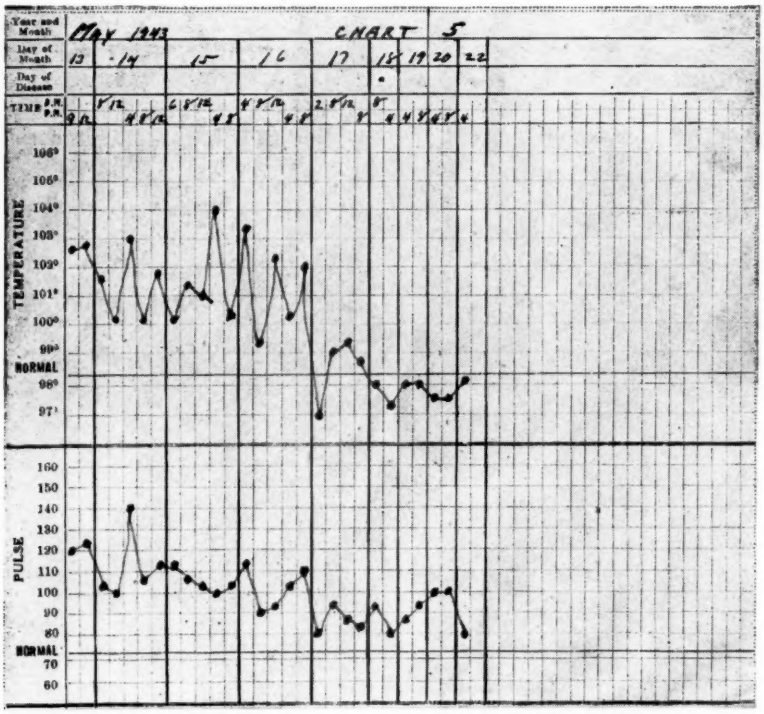
suspected food was available for study.

It seems reasonable to conclude that the rice pudding was contaminated and served as the source of the infection. How it became contaminated is not hard to guess when one realizes the habits of the Arabs, employed at that time in considerable numbers in the hospital building program, plus the presence of large numbers of ordinary flies. Not a day passed but it was necessary to remove several piles of human feces from various relatively secluded points about the grounds. Many of these were found in a small grove of bushes some fifty yards from the officers' mess hall which was screened throughout but had only one screen door, rather than a double entry, so that ingress of some flies was unavoidable.

BACTERIOLOGICAL AND SEROLOGICAL STUDIES

Routine stool cultures were run on 16 patients during their period of hospitalization, and in 12 cases a Salmonella-like organism was found. Isolation of the organism was effected on S. S. agar plates. All strains of this organism were lactose, sucrose, and indol negative, and did not liquefy gelatin. The organism was motile, and fermented mannite, maltose, xylose, dulcitol, sorbitol, rhamnose, arabinose, and dextrose with the formation of acid and gas. H_2S was produced on Kleigler's iron agar and an alkaline slant was formed on Simmon's citrate agar. Acid was produced on sodium tartrate agar (DIFCO).

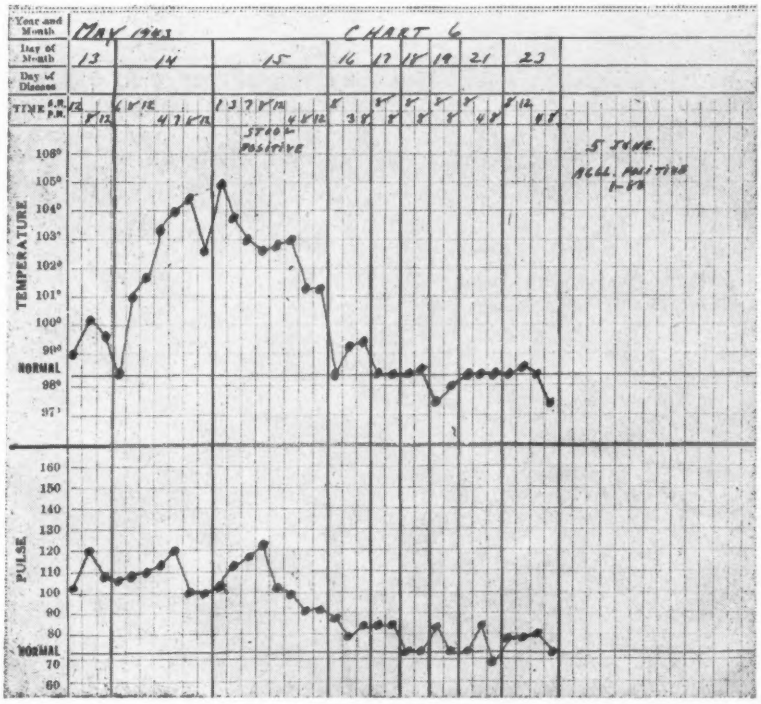
This organism was agglutinated to partial titer by S. hirschfeldii diagnostic antiserum, but the



Case No. V.—13 May awoke about 0230 feeling hot and aching all over. About 0400 had hard shaking chill lasting 5 minutes. Throughout day felt feverish and weak, had 3 or 4 loose stools, nose felt stuffy and discharged slightly. Admitted 2300. P.E. negative, WBC 5300, polys. 71, lym. 29. Urine twice negative. During next few days had moderate diarrhea, was very toxic, drowsy and sick looking. Stool negative 22 May. Exact diagnosis in this case not made. Time of onset plus general course makes it probable patient had same infection as others. Note classical typhoid appearance.

serum from the convalescent patients did not agglutinate S. hirschfeldii except in a few instances in very low titer. This indicated the organism was antigenically related to S. hirschfeldii but not identical with it. A culture of the organism was sent to the Army Medical Center, Washington, and was identified as Salmonella oranienburg. ("O" factors —VI, VII. . . ., "H" factors—mt . . .).

cases. For control purposes, serum was also collected from six persons who had no history of diarrhea and had not eaten the suspected foods. These sera were obtained between two and three weeks after the onset of the epidemic, and agglutination tests were run against suspensions of typhoid "H", typhoid "O", S. paratyphi, S. schottmulleri, S. hirschfeldii, and S. oranienburg. Serum dilutions



Case No. VI.—13 May awoke with vague cramping pain around umbilicus which seemed to settle in RLQ. Vomited breakfast, bowels moved normally. Normal menstrual period occurred 2 weeks before. Admitted 1230. P.E. Temperature 99. There was tenderness and rebound tenderness in RLQ. WBC 10,400, polys. 84, lym. 16, urine normal. A diagnosis of acute appendicitis was made and operation performed. Ruptured bleeding right ovarian follicle found and repaired. Appendectomy. Next day patient had nausea, vomiting and profuse watery diarrhea. Condition considered serious. Peritonitis feared. 15 May stool positive for Salmonella, general condition improved. Recovery uneventful. On 5 June, 22 days after onset, agglutination positive 1-80. Note Salmonella infection coincident with ruptured ovarian follicle and operation, creating alarming clinical condition.

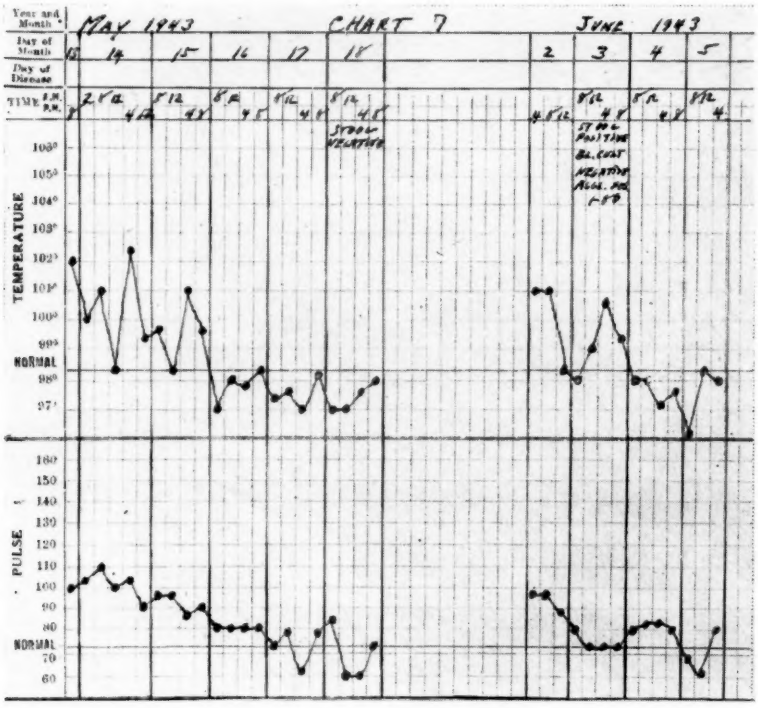
Blood cultures were taken on six patients and S. oranienburg was isolated in two instances. One of the cases with a positive blood culture had negative stool cultures.

As soon as it was realized that we were dealing with a Salmonella epidemic, serum was collected from all of the severe cases and many of the mild

ran from 1-40 to 1-5120. To a certain degree, the relatively high agglutination titres against typhoid H, S. paratyphi, S. schottmulleri may well have been due to fact that all members received stimulating dose of U. S. Army typhoid vaccine 3 weeks before outbreak of epidemic. (Chart VIII.) A total of 22 cases had positive laboratory evidence of infection

with S. oranienburg. In only one instance were agglutination tests repeated on a patient (Case No. VII). This patient showed a generalized increase in agglutination titer within the group with a marked increase in titer for S. oranienburg. The heavy routine work performed by the laboratory under field conditions made it impractical to repeat the agglutination tests on all patients.

Subsequent stool cultures made on all personnel who gave a history of illness at the time of the epidemic were negative except in two instances. One case ran positive stool cultures for nine weeks, and one case developed into a chronic bile carrier with positive bile cultures and persistently positive stool cultures.



Case No. VII.—13 May toward noon began to have severe frontal headache and had several loose watery stools. In P.M. had several shaking chills followed by feverishness. Headache and diarrhea continued. At times had involuntary stools. By nightfall headache almost unbearable despite numerous doses of aspirin and codeine. Became drowsy—admitted 1930. P.E. appeared toxic and semi-stuporous, spleen readily palpable, smooth, hard, and non-tender; questionably palpable liver. WBC 17650, polys. 87, lym. 13, urine normal. Meningitis, encephalitis and typhoid fever considered in diagnosis. Spinal puncture contemplated but omitted. Great improvement in next few days. Stool negative 18 May. Returned to duty 19 May but during next 2 weeks continued to feel weak and badly. 1 & 2 June felt feverish and exhausted. Readmitted 2 June 1550—T. 101, spleen as before. Thought to be slightly jaundiced. Icteric index 15. Blood culture negative 3 June. Same date agglutination positive 1-80. Stool positive for Salmonella oranienburg and has continued so on many occasions although patient clinically well since 5 June, a period of 2 months. Agglutination titre had risen to 1-1280, 24 June. Urine thrice negative for Salmonella. Bile culture positive 22 June. Cholecystogram normal 10 July. Note "typhoid" nature of onset and development of gall-bladder or hepatic duct type of carrier state. The question of cholecystectomy was considered.

SUMMARY AND CONCLUSION

An epidemic of gastro-enteritis caused by S. oranienburg has been reported. Forty-five (45) persons were affected to some degree. Apparently contaminated rice pudding was the source of the infection. One patient developed into a gall-bladder or hepatic type of carrier, and another was a temporary intestinal type carrier.

A MINOR EPIDEMIC OF SALMONELLA INFECTION
CHART NO. VIII
BACTERIOLOGICAL AND SEROLOGICAL STUDIES

AGGLUTINATION TITER (COMPLETE AGGLUTINATION)										
TY-H	TY-O	PARATYPHI	SCHOTT	HIRSCH	O'ANIEN	SEVERITY	BL. CULTURE	STOOL CULT.	BILE CULT.	CLIN. CHARTS
1-320	0	1-320	1-160	0	1-320	severe	Neg.	Pos.		
1-160	0	1-640	1-160	0	1-2560	severe	Neg.	Neg.		III
1-320	0	1-80	1-80	0	1-1280	severe	Pos.	Neg.		I
1-160	0	1-160	1-80	0	1-1280	severe		Pos.		
1-80	0	1-80	1-40	0	1-1280	severe	Pos.	Pos.		II
1-320	1-40	1-640	1-320	0	1-160	mod. sev.		Pos.		
1-160	0	1-80	1-80	0	1-80	mild		Pos.		VI
1-40	0	1-320	1-40	0	1-80	mild				
1-160	0	1-320	1-320	0	1-80	severe	Neg.	Pos.	Pos.	VII
1-640	0	1-320	1-640	0	1-1280					VII
1-320	0	1-160	1-160	0	1-80	mild		Pos.		
1-160	0	1-320	1-160	0	1-80	mild		Pos.		
1-80	0	1-160	1-160	0	1-40	mild		Pos.		
1-320	0	1-320	Unsat.	0	1-80	mild				
1-160	0	1-40	1-80	0	0	very mild				
1-640	1-40	1-640	1-160	0	1-80	moderate		Pos.		
1-1280	0	1-320	1-160	0	0	mild				
1-640	1-40	1-320	1-320	1-40	1-40	moderate				
1-320	0	1-640	1-640	0	0	very mild				
1-160	0	1-320	Unsat.	0	1-40	mild				
1-160	0	1-160	1-160	0	0	very mild				
1-640	1-40	1-80	1-640	1-80	1-160	mild		Pos.		
1-1280	0	1-320	1-1280	1-80	1-80	mild				
					1-40	mild				
1-1280	0	1-320	1-320	1-40	1-1280	severe	Neg.	Neg.		IV
1-160	0	1-160	1-160	1-40	1-160	mild				
1-320	0	1-80	1-40	0	1-640	moderate		Pos.	Neg.	
						moderate		Neg.		
						mild		Neg.		
1-640	0	1-320	1-640	0	0	control				
1-320	0	1-40	1-160	0	0	control				
1-160	1-40	1-160	1-320	0	0	control				
1-80	1-40	1-160	1-160	0	0	control				
1-320	0	1-160	1-80	0	0	control				
1-640	1-40	1-640	1-320	0	0	control				

Serum dilutions from 1-40 to 5120 Nelson-Snider

Soda for Wood Alcohol Poisoning.

Four Navy doctors, who made a study of methyl (wood) alcohol poisoning, believe the essential principle of treatment is the correction of acidosis with an alkali, such as soda.

The doctors, who reported this study in the January 12 issue of *The Journal of the American Medical Association,* are: Commander W. B. Chew, Commander E. H. Berger, Captain O. A. Brines, and Captain M. J. Capron, of the United States Naval Reserve.

Of 31 military personnel patients suffering from wood alcohol poisoning and under the care of these doctors, five died within three hours after admission to the hospital. The rest recovered and were returned to duty. The authors felt that their success was due to the prompt elimination of acidosis, sometimes called acid intoxication.

Methyl alcohol poisoning usually results in blindness or death. The poison seems to have a selective effect on the optic nerve and retina of the eyes. The symptoms are usually delayed for nine to 36 hours, during which time an individual may continue to carry on. Suddenly weakness, headache, nausea, vomiting and collapse occur. If death does not come first, then the coma may last for several days before improvement occurs. Permanent blindness is then a frequent result.

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THE EARLY CLINICAL RECOGNITION OF CORONARY ARTERY DISEASE—WITH TEN CASE REPORTS

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That the correct diagnosis of coronary artery disease is not always an easy one has been impressed upon me by my experiences of the last few years in examining and treating men of military age in Army hospitals. While seeking so-called typical clinical patterns, I have become increasingly aware of the frequency with which coronary artery disease may present itself in less common guises. Perhaps the fact that soldiers present themselves for treatment when symptoms are minimal contributes to the diagnostic problem, as modern ideas of cardiac disease are based upon civilian observations, and in civilian life most patients do not consult their physicians so promptly or so early in the course of their disease.

In the military service, where medical care is promptly available, and laboratory facilities and hospitalization easily secured, one should be able to observe coronary artery disease in its earlier stages. This paper is based upon observation of cardiac patients in Army hospitals during the past few years. During that time I have had under observation with coronary disease 8 men under 35 years of age, of whom 2 were 26, with no early fatalities among them. This report represents an attempt to crystallize this military medical experience. While the observations may not be new to experienced clinicians, only by continued emphasis upon these problems will further progress be made.

Not so many years ago, however, the subject of coronary artery disease was associated with thoughts of older patients, severe pain, obvious electrocardiographic changes, and sudden death, for then coronary artery disease was too commonly recognized only when obviously severe and perhaps fatal. Early in 1944 workers at the Army Medical Museum reported[1] autopsy findings of 80 of 100 cases of fatal coronary arteriosclerosis in young soldiers between 20 and 36 years of age. The report states that only one-third had prodromal symptoms suggestive of heart disease. Of this latter group, none displayed any evidence of coronary disease on careful study, and only one had been diagnosed and treated before the final fatal episode.

This report brings up several interesting points: First, coronary artery disease is a disease affecting the younger age groups as well as the older. Secondly, the underlying process is the same in the young as in the old—arteriosclerosis. Third, there is still much to be done in the early recognition of these cases. Fourth, and finally, if so many fatal cases were found in young persons, how many more must exist in all age groups that go unrecognized clinically?

Before proceeding further it would be well to define our terms. By coronary artery insufficiency is meant the condition when the coronary arteries do not fulfill their normal function of carrying an adequate blood supply to the heart muscles; that is, when the coronary flow is inadequate or insufficient. This may be caused by increased need on the part of the heart muscle, or by decreased supply via the coronary arteries, or both. We are concerned here with the latter—inadequate supply via the coronary vessels.

Myocardial infarction is a result of coronary insufficiency. At autopsy one may find coronary artery disease without infarction, infarction without complete coronary occlusion, and pathologically demonstrable coronary disease without history of a corresponding clinical picture. Similarly, autopsy of some patients with clinical symptoms of coronary insufficiency may disclose no myocardial infarction. In acute coronary insufficiency patients may succumb suddenly because of a fatal arrhythmia, such as ventricular fibrillation, before gross infarction has developed.

The extent of the myocardial damage is dependent upon the degree and the duration of the coronary insufficiency, as shown by the studies of Blumgart and co-workers.[2] Sudden narrowing of the coronary vessels of experimental animals to less than 15 per cent of the original cross section resulted in sudden death. With gradual narrowing,

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Presented (by invitation) before the Medical Association of the Valley of Virginia, 27 September, 1945, at Staunton, Virginia.

however, the survival time was longer, and autopsy study disclosed a rich anastomotic circulation. The collateral circulation was shown to be functionally significant, for then the animals survived sudden complete occlusion of the previously narrowed artery.

Coronary insufficiency may be encountered in shock, at times resulting in actual myocardial infarction, as a result of drop in blood pressure, and inadequate coronary blood flow. A case in point (*Case 1*) is that of a 19 year old white soldier, who suffered from shock and anemia postoperatively. He had marked tachycardia and shortness of breath, and was placed in an oxygen tent. Electrocardiographic studies showed changes indicating anterior coronary insufficiency. The electrocardiogram showed improvement as the patient's clinical condition improved.

The most common cause of coronary insufficiency, however, is arteriosclerosis of the coronary artery, to which the major part of this discussion will be limited. If the arteriosclerosis is gradual and progressive, anastomoses may form, and the patient may never have a gross acute myocardial infarction. If coronary occlusion occurs in an older patient, one might expect the immediate prognosis to be better than in a younger patient because of the presence of such anastomoses, and the ultimate prognosis to be worse in an older patient because of the greater degree of diffuse coronary arterial disease present, for in a younger patient the sclerotic changes may be more localized.[3] This is not substantiated by the studies of Rosenbaum and Levine,[4,5] who conclude that the immediate mortality increases with advancing years, and that their younger patients had a distinctly longer survival period than the older ones. Infarction of the myocardium may occur when a thrombus suddenly occludes a narrowed vessel—perhaps because of subendothelial hemorrhage at the site of an arteriosclerotic placque—or when the increased oxygen demands of the myocardium are not met because the coronary arteries, though patent, are narrowed and insufficient.

Coronary insufficiency may be temporary. When increased activity requires more oxygen for the myocardium, and the coronary arteries are insufficient to supply this need, the reflexes involved may cause anginal symptoms. "In this syndrome the major symptom is chest pain, which is precipitated usually by effort, but sometimes by excitement, a heavy meal or exposure to cold. Pain is usually substernal or just to the left of the sternum. Occasionally the pain is epigastric and at rare instances it may be localized in the neck or left arm or shoulder. There is a tendency for the pain to radiate, most frequently to the left shoulder and arm and occasionally to the fingers. Less frequently it may radiate to the neck, jaw and teeth, to back, upper abdomen, or to the right shoulder and arm. At times the pain will start at one of these points before focusing on the anterior surface of the chest. . . . The precipitating cause is commonly physical exertion, rest usually causes the pain to subside. The length of the attack, therefore, is relatively short."[6] Anginal pains are frequently relieved by vasodilators, such as nitroglycerine and amyl nitrite.

The following cases serve to illustrate the points mentioned and to call attention to several other pertinent factors in this condition:

Case 2.—A 45 year old white male officer experienced an aching discomfort after effort. This discomfort would begin on either side of the neck and radiate along the outer side of each mandible to the chin. It was of moderate severity, occurred only after exercise, and was immediately relieved by nitroglycerine. This patient's electrocardiogram was normal at rest, but after exercise showed changes indicative of coronary insufficiency.

Case 3.—This 50 year old white male officer had typical anginal symptoms for several weeks, after which he suddenly had an acute, severe, typical episode of myocardial infarction. Electrocardiogram at rest was normal, but after exercise showed changes indicative of coronary insufficiency.

Case 4.—In May, 1944, a 34 year old colored male soldier began to experience shortness of breath, sweating and tightness at the base of the neck on running a distance of 100 yards or more. These symptoms continued unchanged in degree until 4 July 1945, when the patient had a severe attack of crushing precordial pain at rest, lasting for several hours. He was hospitalized and found to have myocardial infarction, with characteristic electrocardiographic changes indicating anterior coronary occlusion.

Case 5.—A 38 year old white male officer began to experience angina on exertion in August, 1944. His symptoms were relieved immediately by rest. In April, 1945, after exertion he experienced precordial pain, subsiding spontaneously after one-half hour. He was hospitalized, where electrocardio-

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graphic findings were those of acute anterior coronary occlusion.

The cases noted above indicate that angina need not always present a typical picture. Pain about the jaw and neck is unusual as the primary and only site of anginal discomfort, while it is not so uncommon as a secondary site.[7] The sudden onset of angina pectoris in a patient previously well, or a sudden increase in the frequency and ease of precipitation of anginal symptoms in a patient with known angina pectoris should suggest recent impairment of the coronary circulation in the first instance, or recent spread of the coronary process in the second instance. This is borne out by the studies of Blumgart, Schlesinger and Davis.[8]

We have observed several patients who experienced no discomfort before meals, but who state that on walking back from mess they have noted substernal discomfort. Other patients note that their anginal symptoms are precipitated by much less effort after eating than before eating. This clinical picture is explained by the fact that distention of the stomach causes reflex vasoconstriction of the coronary arteries, resulting in a measurable decrease of coronary blood flow in experimental animals. Exercise tolerance is decreased after meals in these patients. Distention of a hollow viscus, such as the gall-bladder, also may cause reflex vasoconstriction and decrease in coronary blood flow. This may explain why certain patients with cholecystitis and angina pectoris experience improvement in the anginal symptoms after cholecystectomy. Exposure to cold has a similar effect, and some patients may experience anginal symptoms more easily when walking in the cold or against a cool wind.[9]

An interesting case (*Case 6*) is that of a 53 year old white male, a diabetic. In December, 1943, he experienced sudden precordial discomfort, a sensation of tightness, while walking. An electrocardiogram was taken within 20 minutes of the onset of this discomfort, and disclosed auricular fibrillation. This arrhythmia subsided spontaneously after it had lasted for 30 minutes. The patient was hospitalized for 2 days for observation and then resumed his duties. He then began to experience shortness of breath while climbing uphill, associated with a sensation of tightness substernally. In February, 1945, he had a second episode of paroxysmal auricular fibrillation, lasting for about one-half hour. During July and August, 1945, he had frequent episodes of paroxysmal auricular fibrillation. Since then his anginal symptoms are more severe, and are more easily precipitated.

This case serves to emphasize the fact that the sudden onset of an arrhythmia in a patient previously well should be regarded with suspicion and evidence of coronary disease sought for.

Coronary insufficiency may be sudden, severe and alarming, as in coronary thrombosis and acute myocardial infarction. Typically, the patient may experience "severe, substernal, precordial or epigastric pain, sudden in onset, of prolonged duration, occurring either at rest or with exercise or with exertion. Administration of nitrites does not afford relief. . . . Fall in blood pressure. . . . Faint heart sounds. . . . Fever appearing 8 to 24 hours after onset and rarely high. Leucocytosis with increase in polymorphonuclears may be present within the first 6 or 8 hours. Acceleration of the erythrocyte sedimentation rate is found after the third day. Pericardial friction rub."[10]

However, there are many instances when the clinical picure is not so typical. We have observed a number of exceptions, of which the following cases are illustrative:

Case 7.—A 26 year old white male soldier experienced pain localized about the apex of the heart, over an area covered by a 50-cent piece. This pain was severe, aching, and subsided spontaneously after 2 hours. During the next week the soldier had vague discomfort about the apical region precipitated by exertion; but he continued with his military activity. On the seventh day, after sudden gaseous eructation, he experienced severe pain of the type noted earlier, lasting for one hour, then subsiding spontaneously. He was hospitalized on the following day, and the electrocardiogram revealed changes indicative of anterior coronary occlusion.

Case 8.—A 36 year old white male soldier experienced vague aching discomfort, "like rheumatism", about the left elbow region for a period of 2 days. On the third day he had severe precordial pain, and presented a typical clinical picture of coronary occlusion. Electrocardiographic study revealed changes of acute anterior coronary occlusion.

Case 9.—A 35 year old physician was awakened at 6 A. M. by moderate, aching, substernal discomfort. This discomfort subsided spontaneously after one-half hour and the patient again fell asleep.

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Physical examination the next day revealed no abnormalities. An electrocardiogram was normal. The physician refused bed rest for further observation. During the next two weeks he experienced slight dyspnoea upon walking up hills or climbing steps, and attributed this to loss of sleep due to overwork. An electrocardiogram taken 2 weeks after the initial episode revealed changes indicative of anterior coronary occlusion. He was put to rest and during the next few weeks his electrocardiogram showed typical serial changes.

Case 10.—A 46 year old physician experienced vague burning discomfort, localized at the apex of the heart. This lasted for 2 hours, and was relieved by 1/64th grain dilaudid. The patient slept well. The next morning while walking up an incline, he experienced minimal shortness of breath, and slight discomfort at the apex of the heart. An electrocardiogram was within normal limits. The patient was hospitalized for observation. Further studies revealed no leukocytosis, fever, or elevation of sedimentation rate. However, during the next few weeks the patient's electrocardiogram gradually became abnormal, with lowering and then inversion of the T waves in Leads I and IV. By the end of the seventh week the record was again normal.

These clinical illustrations serve to emphasize that the pain in prolonged coronary insufficiency is not always typical in character or in duration. At times the sudden onset of cardiac failure may be the first sign of coronary occlusion. These cases emphasize the importance of careful study and observation of all patients suspected of coronary artery disease. The electrocardiographic changes may not appear until some time has elapsed. A changing electrocardiographic pattern is important, even if single electrocardiograms are not grossly abnormal. Further, while electrocardiographic changes commonly are found early, they may on occasion not appear until later.

While in many cases patients with symptoms similar to those in the cases described above will be found upon careful study not to have cardiac disease, one should be alert to the fact that coronary artery disease may present itself in atypical fashion. One should, therefore, maintain a high index of suspicion in dealing with patients whose symptoms are suggestive but not typical of coronary disease. A good adage is to treat a patient with a sufficiently suggestive clinical picture as though he had coronary disease until proven otherwise. Only in this way will more patients be treated for coronary artery disease early in their clinical course, rather than later when the clinical picture is more obvious.

As for the electrocardiogram, while it is a useful laboratory procedure, its importance should not be over-emphasized. When the clinical picture is obvious, the electrocardiogram is confirmatory, and aids in following the evolution of the process. When the clinical picture is suggestive, the electrocardiogram may furnish corroborative evidence, but when negative initially does not disprove the diagnosis. Serial electrocardiograms are more important than an isolated record. Electrocardiographic changes may be delayed in their appearance. Finally, as Levine so aptly remarked: "As a general axiom, the more thoroughly one understands electrocardiography, the less one needs it."[11]

SUMMARY AND CONCLUSIONS

Observation of cardiac patients of military age justifies emphasis upon the fact that coronary artery disease may manifest itself as an atypical clinical picture. Ten illustrative cases are here described. Not only may the pain be mild in character, unusual in location and brief in duration, but pain may be absent altogether, and the sudden onset of cardiac arrhythmia or of cardiac insufficiency may herald a coronary accident.

Since electrocardiographic changes may be late in appearance, relatively transient, and often minor in single tracings, serial electrocardiographic study is important. In all cases, however, the clinical picture is most important, and one should maintain a high index of suspicion despite an initially normal electrocardiogram. Conversely, when routine electrocardiographic study in an apparently normal young person is suggestive of coronary artery disease, one should inquire into the past history most carefully before concluding that the "range of normal electrocardiographic findings" should be widened.

Finally, one has reason to expect that further studies upon younger persons, with wider use of electrocardiography, will disclose coronary artery disease to be more frequent, and the ultimate prognosis better than is now indicated by observations upon older age groups.

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Develop Sunburn Salve.

A petrolatum compound, developed as a result of wartime research, has been found to give excellent protection to the skin against long exposures to the sun. According to an article in the January 5 issue of *The Journal of the American Medical Association,* the sunburn ointment is not irritating to the skin nor will it come off easily in water.

The experiments were made under the direction of Matthew Luckiesh, D.Sc., of the Lighting Research Laboratory, General Electric Company, Nela Park, Cleveland. He was assisted by A. H. Taylor, and two physicians, H. N. Cole, and Torald Sollmann, from the Department of Dermatology and Syphilology and the Department of Pharmacology and Experimental Therapeutics of Western Reserve Medical School.

The authors said that dark red veterinary petrolatum was the safest, most practicable, most cohesive and nontoxic agent found in their search for a protective skin coating for the prevention of sunburn.

The research was undertaken in behalf of the Army Air Forces, which needed a protective cream or ointment for fliers forced down in the Pacific area. The product had to withstand heat and cold, be free from rancidity, lend itself to simple packing, be nontoxic and not wash off. These requirements made it possible to place the ointment on life rafts or military aircraft.

In explaining their method of testing, the authors wrote: "The (ultraviolet light) exposure of 10 seconds on the subject, without any protection, produced a moderately strong erythema (sunburn), while a 20 minute exposure produced no visible erythema when the same subject had a thin coating of the compound. This exposure was equivalent to 20 hours of the strongest sunlight in Cleveland measured during a four year period. It is quite evident that this petrolatum alone, with nothing added, would give ample protection to the skin. Moreover, the petrolatum rubbed into the skin of one of us several nights in succession gave no evidence of irritation."

Six subjects were used in these experiments with an ultraviolet source intensity equivalent to 60 times the most intense sunlight measured in Cleveland over a period of years. One minute of exposure to this source is comparable to about two hours of average midsummer noon sunlight in Cleveland.

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RECENT ADVANCES IN THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE EXTERNAL EYE*

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External diseases of the eye are the red-headed stepchild of the ophthalmologist. This has always been more or less true, but today, due to the burden imposed by war, we find external diseases enjoying even greater neglect than heretofore.

Whenever a red eye is encountered and the external eye is obviously affected, all too often, without further ado, the diagnosis of conjunctivitis is imposed, some salve or drop prescribed, and no effort is expended in running to earth the etiological agent. Since the majority of external diseases are self-limited, this course frequently results in a happy termination; but all too often such is not the case and a lapse into chronicity results. In any event, in this so-called enlightened age we as ophthalmologists should be satisfied only when the true nature of the lesion has been established and scientific therapeusis instituted.

In this paper an effort has been made not to attempt a discussion of the whole field of external diseases but rather in the time allotted to point out some of the recent advances in the diagnosis and treatment of diseases of the external eye.

Diagnosis in most cases of external disease is a relatively simple and easy procedure. Direct smears when Gram stained are usually sufficient for revealing the offending organism but considerable additional information such as the presence of inclusion bodies and the prevailing cytology can be gleaned from a study of epithelial scrapings obtained with the platinum spatula and stained with Giemsa. If tubercle is suspected, the acid fast stain is of value while Victoria blue stains virus elementary bodies beautifully. Examination by dark field is of value in diagnosing primary luetic lesions as well as Vincent's. In some instances, particularly where there is granulation tissue or a new growth, biopsy must be resorted to.

Cultures are important in practically every case of external disease. Usually the rabbit blood agar plate will suffice but, if further information is desired, as in determining staphylococcic pathogenicity, the phenol red mannitol agar plate should be employed and the results confirmed by the coagulase test. Where anaerobes are to be cultured chopped meat medium is preferable and for growing diphtheria and the diplobacillus Loeffler's remains the best culture medium. If the diagnosis still hangs in doubt and further studies are needed animal inoculation should be tried. This can be carried out in several ways. Intraperitoneal injection or injection into the groin of a guinea pig or into the anterior chamber of a rabbit is of value in establishing the diagnosis of tuberculosis, while the herpes and vaccinia virus can be identified by scarifying the cornea of a rabbit and observing the resulting keratitis or encephalitis. The herpes virus can also be grown on the chick chorioallantoic membrane and is perhaps best isolated in pure culture by intracerebral mouse injection. This method has also been used by Sanders in isolating the virus of epidemic keratoconjunctivitis.

Perhaps the commonest external disease with which we have to deal is a blepharoconjunctivitis caused by the pathogenic staphylococcus. When cultured the organism is usually found to be of the aureus strain and is mannitol and coagulase positive. The organisms are found for the most part lodged in the Meibomian glands and from here they spill over into the conjunctival sac. In order to affect a cure a fairly rigorous regime must be instituted. The lid margins should be touched biweekly with 1 per cent silver nitrate solution and the Meibomian glands massaged often. Five per cent sulfathiazole or, better still, sulfadiazine ointment should then be placed in the conjunctival sac several times a day and each night the cilia roots carefully cleansed with an applicator containing the ointment. In recalcitrant cases, instead of the sulfa ointment, a penicillin ointment (petrolatum base) containing from 500 to 1000 Oxford units per gram of ointment base will be found valuable. A course of staph. toxoid to accompany this local treatment will frequently bring about a cure when other methods have failed. It is thought that in such instances the toxoid acts, not to build up the patient's staph. titre or resistance, but rather to desensitize the patient to the products of the staphylo-

*Read before the Virginia Society of Ophthalmology and Otolaryngology, April 28, 1945.

coccus. In very stubborn cases Thygeson[1] has found the intramuscular administration of penicillin to be superior to the local use, but only in those cases where the strain of staphylococcus is penicillin sensitive. And it must be remembered that a considerable number of these organisms are penicillin fast, and where such is the case other chemotherapy should be resorted to.

Excision of chalazia either through the conjunctiva or skin surface, depending upon which side they present, is still the method of choice in treating these lesions. The marginal variety are particularly prone to recur after excision and in these instances desiccation with the nonopolar diathermy current is very effective. The lesion should be desiccated at weekly intervals and as a rule two or three such treatments suffice.

Diathermy either of the monopolar or bipolar type is also useful in ablating trichiatic cilia. A fine needle is passed alongside the offending cilia with the diathermy current of sufficient strength to make the needle's passage easy and the treated cilia is then lifted out with forceps.

A somewhat rare cause of persistent uniocular conjunctivitis is a molluscum nodule situated at the lid margin. The appearance of the unbilicated papule is characteristic and the diagnosis is clinched by finding the molluscum bodies stained with Victoria blue. Here too the desiccating current is perhaps the simplest and best method of removing the lesion. And once the lesion has been removed, the conjunctivitis rapidly disappears.

Herpes zoster ophthalmicus is a disease always of serious import. This is particularly true where the cornea and uveal tract are involved, since vision may be permanently reduced as a result of corneal scarring. Gundersen[2] has advocated the use of immunotransfusion (400-500 c.c. of convalescent blood) and has shown that many cases can be aborted or their clinical course considerably modified by such a procedure. At the Institute of Ophthalmology of the Presbyterian Hospital we employed immune serum 50 c.c. intravenously every day for four days with equally good results, and where convalescent serum is available this is the method of choice. If no serum is to be had, moccasin venom intracutaneously, beginning with 0.1 c.c. and increasing the dose 0.1 c.c. as tolerated, is valuable. The venom should be given every other day and the dosage increased as rapidly as possible, for sensitivity develops speedily, frequently within ten days.

Epithelioma of the lids are seen rather often. They are best excised with a wide margin of safety. If the defect created is large and involves only the skin of the lower lid and not the full thickness, a skin graft taken from the upper lid should be used to close the wound. If this plan is not followed, on healing a cicatricial ectropion may result from tissue loss. Where the full thickness of the lid is involved excision with a halving procedure should be carried out, or if the lesion is very extensive a new lid must be created from a temporal flap. X-ray or radium can, of course, be used instead of surgical excision, but when these agents are employed the globe must be carefully screened to prevent severe reactions such as the development of radiation cataract or glaucoma.

Acute dacryocystitis is usually seen as an acute exacerbation of a chronic process, the primary type being exceedingly rare. The diagnosis is easily made since the injection, swelling and tenderness over the sac is pathognomonic. In treating the condition, in addition to hot compresses, either sulfadiazine or penicillin should be employed generally with incision and drainage to follow as soon as pointing occurs. And once the acute process has subsided the chronic form of the disease should be eliminated by carrying out a dacryocystorhinostomy. This operation is highly successful and cures should be obtained in at least 90 per cent of the cases.

Concretions, caused by either the leptothrix or streptothrix organisms, are found occasionally blocking the lacrimal canaliculi. In addition to tearing of the affected eye, a severe chronic conjunctivitis results. The diagnosis should be suspected when the offending organism is discovered either by culture or in scrapings, and investigation of the canaliculus will disclose the concretion. Removal may be accomplished in some instances by milking the canaliculus gently with a spatula, but as a rule the punctum and canaliculus must be split in order to bring about delivery. Once the concretion has been removed both the tearing and the conjunctival reaction disappear.

On rare occasions a cilium in the punctum brings the patient to the ophthalmologist with the complaint of a foreign body. The presence of the offending lash sets up a severe irritation of the conjunctiva in the region of the inner canthus. At times the

offending cilia may be well hidden within the punctum and canaliculus, but careful examination with the loupe or corneal microscope will reveal at least a portion extending from the punctum. When this is removed with forceps symptoms immediately disappear.

Metastatic dacryoadenitis according to the literature is a rare entity, but it probably occurs not infrequently and is misdiagnosed as an orbital cellulitis, cause unknown. The condition should be suspected in any case of orbital cellulitis where sinusitis or dacryocystitis can be ruled out. The presence of tenderness and swelling over the gland makes such a diagnosis likely. Final diagnosis must usually await partial subsidence of the inflammation, when the swollen gland can be seen and palpated, after the upper lid has been partially elevated. Dacryoadenitis of such a character responds rapidly to the general administration of either the sulfa drugs or penicillin. The gonococcus, streptococcus and staphylococcus are the commonest causal agents.

The sulfa drugs and more recently penicillin have been a greater boon to ophthalmologists in the treatment of gonorrheal ophthalmia than in the treatment of any other eye condition. Before the advent of these drugs a purulent conjunctivitis caused by the Neisserian organism was a condition to be dreaded, for the outcome even with good attention all too often resulted in the loss of a globe or at best considerable visual impairment. The picture has now changed radically and the treatment of this condition is both simple and efficacious, cure being affected rapidly and with a minimum of nursing care.

In most cases a diagnosis of Neisserian purulent conjunctivitis can be made from the clinical appearance of the affected eye. Gonorrheal ophthalmia as a rule begins on or before the fifth day. Edema is marked and involves both upper and lower lids equally. Chemosis involves both bulbar and palpebral conjunctiva and there is a profuse dirty discharge of somewhat greenish-yellow hue. Dirty pseudomembranes are not uncommon. Smears reveal the presence of Gram negative intracellular diplococci and cultures made on chocolate agar plates and incubated under 10 per cent CO_2 tension reveal the characteristic clear or slightly opaque colonies of Neisseria gonorrhea after two or three days. Disappearance of the causal organism and clinical cure takes place rapidly when either the sulfa drugs or penicillin are employed, the best method of administering the drugs being to use them generally as well as locally in the form of an ointment.

Inclusion blenorrhea should be readily differentiated from gonorrheal ophthalmia from the clinical aspect alone. This disease which is responsible for about 10 per cent of the cases of ophthalmia neonatorum (Allen[3]) begins after the fifth day (between five and fifteen days) and is characterized by chemosis and infiltration of the conjunctiva, particularly of the lower lid and fornix, the upper lid showing but slight reaction. Discharge is not as profuse as that in gonorrheal ophthalmia and is of a yellowish hue and considerably less viscid. If pseudomembranes occur they are of whitish color, differing markedly from the dirty pseudomembrane of gonorrheal ophthalmia. Scrapings from the conjunctiva of the lower lid stained with Giemsa reveal initial bodies, elementary bodies or mixed inclusion bodies in the cytoplasm of the epithelial cells. If untreated, the condition runs a course of from two months to one year. If promptly and adequately treated with sulfathiazole ointment locally, the inclusion bodies disappear after three days and the clinical course of the disease is shortened to a matter of a few weeks. The clinical appearance and course of the disease is the same in the adult suffering with swimming pool conjunctivitis and the same virus is responsible for both conditions.

In September of 1941 epidemic keratoconjunctivitis appeared in the shipyards of California and from here spread rapidly eastward so that cases were soon appearing throughout the country, particularly in large industrial areas. The disease is characterized by an early glassy edema of the caruncle, semilunar fold and lower bulbar conjunctiva and fornix. After twenty-four hours edema of the lids appears with marked swelling and injection of the conjunctiva. Discharge is scant and composed mostly of mononuclear cells. Involvement of the regional lymphatics then follows, the preauricular gland being particularly affected. In about half of the cases follicles develop and pseudomembranes are not uncommon. Keratitis begins usually on about the fifth day and is characterized by macular infiltrates formed by the coalescense of numerous small dot-like opacities. The infiltrates appear to be in

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the deep epithelium or superficial stroma and but rarely stain. The conjunctivitis usually disappears after about two weeks and the infiltrates after from three to four months. In this disease sulfa drugs and penicillin are without value but immune plasma in 50 c.c. doses intravenously will bring about rapid subsidence of the disease or greatly modify its severity. The causal agent is a virus isolated by Sanders.[4]

Vernal catarrh continues to be one of our most baffling problems. From practically every standpoint its etiology appears to be on an allergic basis and yet specific sensitivities can rarely be proved. Thygeson has seen one case where a sensitivity to feathers was present and removal of this allergen resulted in cure. The palpebral type of the disease is characterized by the pale pink giant papillae located on the tarsal surface of the upper lid and the limbal variety by the appearance of small elevations around the limbus resembling grains of tapioca and not infrequently containing pathognomonic "Trantas spots". Itching is pronounced and conjunctival scrapings contain large numbers of eosinophils. Symptomatic relief can frequently be obtained with a 1:5000 solution of adrenalin but this does not result in a cure. Thygeson[1] has recently succeeded in affecting a cure in several cases of limbal vernal by histamine desensitization. Other cases of both limbal and palpebral variety while not completely cured have been much improved. The method used is as follows, to quote from him: "Dilutions are made from Lilly's Histamine Acid Phosphate ampules which are equivalent to one mg. active principle of histamine. Serial dilutions are prepared of 0.1, 0.01, 0.001, 0.0001 and 0.00001 using Coca fluid as diluent. Patient is skin tested using three lowest dilutions and is begun on one-tenth of a c.c. of 0.00001 dilution providing skin test to this dilution has not yielded too great a flare. Dose is increased tri-weekly 0.1, 0.3 and 0.5 whereupon the next stronger dilution is used and the same routine carried out. The final dose reached is usually 0.1 of the 0.1 mg. per c.c. dilution and a maintenance dose of this is given at weekly intervals."

Trachoma though rarely seen in this part of the country should be suspected in all cases of chronic conjunctivitis. The presence of tarsal follicles and pannus (Stage I), of marked follicular hypertrophy with pannus (Stage IIa), of papillary hypertrophy with pannus (Stage IIb), of conjunctival scars with gross pannus (Stage III), or of old healed scars with pannus (Stage IV), are diagnostic of the disease and the presence of inclusion bodies in epithelial scrapings in active trachoma is confirmatory evidence. Peroral administration of sulfonamide over a period of two weeks will usually result in a cure in cases of early acute trachoma. In the late cases of trachoma such therapy is also of great value but exacerbations are frequent, necessitating repetition of such courses. Sulfanilamide does not, however, cause any regression of the cicatricial changes wrought by the disease and is therefore efficacious only in those early cases where scarring has not taken place.

Parinaud's oculo-glandular syndrome poses a problem in etiological diagnosis. The commonest causal agents of this type conjunctivitis with granulations and regional adenopathy are the following organisms: leptothrix, tubercle bacillus, Ducrey's bacillus of soft chancre, treponema pallidum and tularemia. Exceptionally the virus of vaccinia or lymphogranuloma venereum, B. mallei—the organism causing glanders—or the organism of pseudotuberculosis rodentium may give rise to the condition. Once diagnosis has been established by appropriate procedures, general measures should be instituted, if indicated, and locally the granulations should be excised. Where the leptothrix organism or the tubercle bacillus has been found, prompt healing usually follows removal of the granulations; and in tularemia of the oculo-glandular type, healing takes place rapidly as general symptoms subside. A luetic infection is also easily controlled but where other agents are responsible a more protracted course may be expected.

Corneal ulcers are usually divided into two principal types according to location, i.e.: marginal and central. The pathogenic staphylococcus is by far the commonest offender in the causation of marginal ulcers but on rare occasions the diplobacillus as well as other bacteria are incriminated. Allergy may also give rise to ulcers of this type, and many times the cause remains obscure. Central ulcers may also be caused by the staphylococcus but the pneumococcus, streptococcus, Friedlander's bacillus, B. pyocyaneus, the diplobacillus of Petite and the gonococcus are more frequently found to be the organisms responsible. It is this central type of ulcer which responds so dramatically to the use of sulfonamides or penicillin introduced iontophoreti-

cally. Many cases will respond to the local use of these drugs when simply instilled or dusted into the conjunctival sac or when employed in the form of an ointment; but in severe and recalcitrant cases iontophoresis is the method of choice. Where the infection is severe and treatment must be instituted before the etiological agent can be established, iontophoresis may be carried out, using as iontophoresing fluid a solution containing 5 per cent sulfadiazine and from 1000 to 5000 Oxford units of either the calcium or sodium salt of penicillin to the c.c.[5]

The chief exponent of iontophoresis therapy in this country has been von Sallmann and it is he who has popularized this form of treatment. The procedure is simple and may be likened to the industrial process of electroplating. A plate of lead is placed on the patient's back and a wet rag is interposed between that and the patient. To this plate is attached one pole of the iontophoresis outfit while the other pole is attached to the platinum electrode of the iontophoresis cup. The iontophoresis cup is then fitted snugly over the cornea and the iontophoresis fluid introduced into the cup until the platinum electrode is well covered. Whether the active electrode of the iontophoresis cup is to serve as anode or cathode depends upon whether anions or cations are to be driven into the eye. In the case where sulfa drugs or penicillin are to be used, since the sulfa or penicillin ion bears a minus charge and hence will migrate to the positive pole, that pole should be attached to the lead plate while the negative pole should be attached to the platinum coil of the iontophoresis cup. Treatment should be carried out at two milliamperes for four to five minutes. Corneal anesthesia is induced with pontocaine. Between iontophoresis treatments, local instillations of the drugs of choice should be continued.

The response to such a form of treatment is rapid and dramatic. It is not uncommon to find a severe serpiginous ulcer become stationary within twenty-four hours and to show no staining after from 48 to 72 hours. And ulcers caused by other organisms will be found to respond equally as well providing, of course, the organism is sensitive to the drug employed.

A further use of iontophoresis is in the treatment of post-operative cataract infections. Almost without exception these infections are caused by the pathogenic staphylococcus. If the infection occurs early, as most of them do, the anterior chamber should first be irrigated with a solution containing 500 Oxford units of penicillin per c.c. and then after 24 hours iontophoresis should be instituted and treatment continued until all evidence of infection has abated. In cases where the infection has remained in the anterior chamber, the eye can usually be saved; and, indeed, where early spread to the vitreous has occurred, a cure can frequently be effected.

In those instances, however, where deep vitreous infection has taken place, as after perforating injury, iontophoresis is found wanting. In such instances heroic measures are called for. 0.2 c.c. of a solution of penicillin containing 2500 units per c.c. should be injected directly into the vitreous. Such a procedure has been shown to be innocuous in animal experiments[6] and recently at the Institute of Ophthalmology of the Presbyterian Hospital von Sallmann[7] has saved several eyes which would certainly have been otherwise lost.

Dendritic ulcers when improperly treated or when allowed to follow their natural course tend to become chronic and scarring results with considerable visual impairment. The best method of treating such ulcers is to curette the cornea, after anesthetizing with 4 per cent cocaine, until it is completely denuded of epithelium. It should then be painted thoroughly with a 3½ per cent solution of tincture of iodine until it turns a light chocolate brown. Neutralization of the iodine should then be affected with a 4 per cent solution of cocaine and a firm patch applied. In most instances the cornea will completely epithelize after 48 hours and the dendritic lesion will be found to have healed. This form of treatment is valueless in late dendritic cases or in treating disciform keratitis due either to the herpes or vaccina virus.

Allen[8] has recently brought about the cure of dendritic ulcers by employing a course of intravenous sodium iodide. He claims in an as yet unpublished series to have affected cures in 22 cases by administrating this drug intravenously in doses of 2-3 gm. Healing is said to occur after from 3 to 15 injections. I have had no experience with this therapy but Thygeson has employed such treatment in one case and after 12 injections, the lesion is still unhealed.

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Nasal Allergies Require Immediate Care to Avoid Complications.

Nasal allergy, if neglected, is prone to develop into chronic sinusitis, bronchitis, or asthma according to Andrew A. Eggston, M.D., of New York.

"Allergy and sinusitis may exist as separate diseases, but they are frequently intimately associated. Either allergy or sinusitis may exist previous to the other and one may aid in development of the other. In about 60 to 80 per cent of nasal allergy cases there is a definite background of sinusitis, and about the same number of cases of sinusitis show signs of bacterial or other allergy," the author stated in the January issue of *Hygeia*, health magazine of the American Medical Association.

Allergy is a popular, as well as scientific, word for any unusual reaction of the body to a common and generally harmless substance in nature. "Hay fever allergies represent the best example of true allergic diseases of the nose, and they may exist uncomplicated by an infection of the sinuses," Dr. Eggston said. "If neglected, however, they may lead to chronic trouble. One must remember that allergy is a constitutional disease, and that not only the nose but all the tissues of the body will react to an allergic substance. . . .

"Another type of nose allergy is the perennial type, with symptoms any time of the year. This is frequently due to bacteria, house dust, food or animal dusts. . . . Asthmatic patients usually have nasal allergy but it is nearly always in combination with an infected sinus, or sinusitis, an inflammation of the nasal membrane characterized by nasal discharge, headache, and a general feeling of indisposition. In the acute phase of sinusitis, there may be fever. Sinusitis, when due to germs, may become a long drawn out and debilitating affair called chronic sinusitis. Nearly every person with a cold in the nose also has an acute inflammation of the adjoining sinuses. This may cause a cold to be prolonged for days, and characteristically a copious mucous discharge of pus appears."

There is no quick cure for allergy or sinus trouble. Unfortunately, neither the sulfonamide drugs nor penicillin has been very effective in giving relief from allergy or chronic sinusitis. Dr. Eggston suggests, however, that "a person's sensitivity can gradually be reduced to normal by repeated exposures to small hypodermic doses of the substance to which he reacts. It may be necessary to continue this treatment for several years."

Stearns and Winthrop Take Over Fairchild Brothers & Foster Line.

Manufacture and distribution of all but three products of Fairchild Brothers & Foster, New York, has been taken over by Frederick Stearns & Company, Division, Sterling Drug, Inc., Detroit. The three, which will be manufactured and distributed by the Winthrop Chemical Company, Rensselaer, N. Y., are Marinol, pHisoderm and Enzymol.

About fifty other trade marks on the list will be marketed by Stearns as "Successors to Fairchild Brothers & Foster." The leaders are Gastron, Pepsencia, Holadin, and Bile Salts. To make the products, a new department has been added to the Detroit plant.

POLIOMYELITIS—RESULTS OF TREATMENT

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and
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The University of Virginia Hospital treated fifty-eight cases of infantile paralysis during the 1944 epidemic. These cases ranged from the age of six months to forty-two years. The majority of the cases were in the group from three to twelve years. At that time there was a great deal of discussion concerning the merits of the Kenny treatment as opposed to the so-called "orthodox" therapy.

Our rationale of treatment was presented in this JOURNAL in September, 1944. We concluded in that paper that the Kenny treatment, as a whole, was unnecessary, expensive and required larger numbers of trained personnel than were available and, in the most part, was based on Sister Kenny's personal theories rather than scientific data.

The Orthopedic Service previously had adhered rigidly to the Kenny method in 1943. Our results were indifferent and disappointing.

Recent investigation[2] has shown most of Miss Kenny's concepts to be invalid.

CLINICAL MANIFESTATIONS

All except twelve cases were brought to the hospital after a three weeks' isolation period in selected centers throughout the State. This period of isolation was based on present epidemiological information that the virus can be recovered in the naso-pharynx during the first ten to sixteen days of the disease. Our general hospital had no isolation facilities. We felt that a three week isolation period would at least protect us against public criticism should any new cases develop in this community.

There recently has been a tendency to eliminate a strict isolation technique. Much of this is due to the action taken by the New York City Department of Health. They claim that it is unnecessary to close schools, keep children from camps and quarantine infected cases. It is interesting to note, however, that directly across the Hudson River in New Jersey, extremely rigid quarantine and isolation technique is still demanded. We feel that until more exact information as to the transmission of the virus is available a fairly rigid routine can do no harm. We personally use masks and gowns when approaching the patient during the early stage of the disease. Careful attention was given to the disposal of excreta of patients during their entire stay in the hospital since the virus has been recovered from the stools of the patients as long as six months after the onset of the disease.

Muscle check examinations were done upon the patients soon after their entrance into the hospital. These were repeated monthly. A rigid standard such as is accepted in most of the crippled childrens' hospitals was used. Normal muscles were labeled *N;* muscles below normal that functioned against resistance were labeled *Fair;* muscles which functioned poorly and could not be used against resistance were labeled *Poor;* and those which contracted only weakly were marked *Trace;* totally paralyzed muscles were marked *Zero.*

Muscle spasm was seen in all cases including those who were brought here two months after the onset of the disease. The hamstrings, the back, the heel cords and the posterior cervical group were mostly involved. All of the cases showed muscle weakness in varying degrees and incoordination was demonstrated in several of the late arrivals.

TREATMENT

The patients were placed on beds with fracture and foot boards. Muscle spasm was treated by the application of hot wet packs given four or five times a day and discontinued when pain on stretching disappeared. Neostigmine methyl sulfate and atropine were given intramuscularly and neostigmine bromide orally, using the doses suggested by Kabat and Knapp.[1] Qualitative measurements of range of motion were made and checked within an hour and several hours after the injection. A small series of cases were treated for a period of weeks with the hot packs alone. These cases were not controls inasmuch as the packs were applied in other hospitals.

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RESULTS

Fifteen cases were discharged without any residual paralysis or muscle weakness. Twenty-one cases were discharged without braces or splints. These had varying degrees of weakness but muscle power was well balanced. Five cases required bilateral long-leg braces and twelve needed unilateral long-leg braces. Five required shoulder supports. Seven needed unilateral short-leg braces and eleven cases showed varying amounts of spinal deviation. Many of these cases will require surgery later. These results can be considered as just about the same as we used to get using the so-called "orthodox" treatment. There is this exception, however; paralyzed limbs showed less general atrophy and better circulation than after the older treatment.

Hot wet packs are valuable in making the patient comfortable and in relieving the painful stretch reflex.

It is difficult to determine accurately the relative merits of the hot packs *versus* neostigmine. It is our opinion and the opinion of the nurses who gave these treatments that the combination of the two was valuable. Thirty-eight per cent of the cases in which neostigmine was used showed dramatic results within an hour after its use. Eighty per cent showed definite improvement while 20 per cent showed little or no results. The intramuscular route was much more successful in our hands. Twenty-three cases showed good results only after treatment was interrupted from five to seven days and then resumed. Increase in painless passive motion varied from 10 per cent to a complete normal range. Side effects of the drug were few and transient and were quickly controlled by additional use of atropine.

We were pleasantly surprised to find that neostigmine strongly influenced the cases with incoordination.

None of the cases developed permanent contractures. It was part of our routine to give each patient daily physiotherapy; this included a full range of motion for each joint after pain had subsided. Several of our cases came to us after long periods of semi-rigid immobilization in bed. Many were required to sleep in long-leg braces and were given no passive exercises. It was in these cases with extremely stiff joints that neostigmine gave the most striking results.

We feel that a muscle which shows no change in power for three months after treatment has begun must be considered at a stand-still so far as its future prognosis. We applied ambulatory braces or corsets in all cases in which our muscle checks indicated that further progress could not be expected and in which we felt that locomotion could be of benefit. We do not agree that these patients should be hospitalized for years instead of months.

The proper place for an ambulatory child, whether he be in braces or not, is at home. The development of hospital personalities is a social problem of no little importance. When the child is discharged the recommendations and muscle charts are sent to the various counties and home physiotherapy has been instituted where physiotherapists were not available.

All of the cases have been requested to report back to our clinic for periodic examinations.

CONCLUSIONS

1. The application of hot packs and neostigmine is of definite value in the early treatment of poliomyelitis.

2. Muscle spasm may persist for long periods unless treated.

3. Neostigmine is of more value when given intramuscularly and in many cases requires interrupted use.

4. Incoordination is also improved by the use of neostigmine.

5. Early locomotion with or without braces gives the patient a better mental and physical outlook and speeds his rehabilitation.

6. Our end-results so far as paralysis was concerned were no better than with previous methods but the patients did show less atrophy and peripheral circulatory difficulty.

7. Early physiotherapy is of distinct value and should be instituted as soon as pain subsides.

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TREATMENT OF CIVILIAN CASUALTIES IN MANILA*

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The title—"The Care of Civilian Casualties in Manila"—might better be termed "Lack of Care of Civilian Casualties in Manila" as will be brought out. The following is the impression of events leading up to the liberation of Manila gained by a non-line officer.

The original Luzon landing occurred on January 9 of this year at Lingayen Gulf. The landing had little opposition nor later was there much in front of the rapidly advancing 14th Corps on the right flank. "Eye" or 1st Corps on the left flank was held back due to the fact that the Japs had concentrated their artillery in the mountains to the left of "Eye" Corps. On account of this, the advance of the entire 6th Army was halted until the left flank could be secured.

It was during this lull that Philippine civilians from Manila began arriving behind our lines 90 miles from the city—their unanimous story being that there were no Japs worth speaking of between us and Manila and that the large number of Japs in the city were planning to evacuate. It is interesting that during the present Yamashita trial it has been testified that the Japs were planning to evacuate Manila but could not because of our complete air supremacy which controlled all roads of exit.

After our flank had been secured, the Army advanced rapidly southward, meeting little opposition and thus confirming the intelligence reports of the Philippines. The 37th Infantry and the First Cavalry Divisions then went through the northern sections of Manila with hardly a shot being fired. And then hell broke loose.

I have gone into the above to explain why the Army did not expect many civilian casualties in the city and hence why we were thus caught short.

The Pasig River runs east and west, dividing this formerly beautiful tropical city into northern and southern halves. The Japs fought furiously in the southern half which contained practically all the down-town district, and then began a systematic demolition program. As our own casualties were mounting, we contributed a pretty thorough daily artillery barrage.

*Read before the Roanoke Academy of Medicine.

It was at this stage that I and two other surgeons were detached from our hospital near Lingayen and were brought to Manila as a team to help care for civilian casualties.

We were then introduced to a problem that was disheartening to say the least. Our place of work was a one-story sprawling hospital in the northern half of Manila which was normally a contagious disease hospital and leper colony of 800 beds.

All of the general hospitals had either been destroyed or were in the section of Manila held by the Japs. Our hospital, San Lazero, contained 1,500 battle casualties. Of these, there were 250 compound fractures, including 54 fractured femurs. Either already present or developing later were 110 cases of tetanus and about 60 cases of gas gangrene. The reason our hospital had been left untouched was because of the type hospital it was, and the Japs were deathly afraid to come inside of its walls.

Buried on the grounds of the hospital was a very adequate amount of medical supplies which had been present and buried at the time that we evacuated Manila in December, 1941. There were a few exceptions to this fortunate medical supply situation. There was no tetanus antitoxin, and we had a most difficult fight to obtain any, as tetanus toxoid was used by the Army, and all Army personnel had previously been immunized.

Our other trouble with supplies was in obtaining plaster. All of our own plaster of Paris had to be rolled by ourselves and even doing this it was difficult as the plaster itself would come in daily and just barely enough for one day's work.

Besides the three doctors, our staff consisted of twelve enlisted medical technicians, eight Philippino doctors, and a reasonable number of Philippino nurses. The medical technicians were intelligent boys, but had, of course, had only first-aid training. The Philippino doctors were all contagious disease experts. This made the training of these doctors in war surgery difficult, and the help which they could give us only fair. The nursing situation was much better as some of them had previously worked in general hospitals.

We had been instructed that we would receive no

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other help from the United States Army as all other medical personnel on Luzon was engaged in the care of the soldiers, and we could only be left there for a few weeks. Therefore, it was not only a matter of taking care of the patients, but also necessary to train the Philippino doctors so that they could know a few of the principles of war surgery when we were pulled out.

Our two main problems were: First, what cases would receive priority; second, improvement of the dreadful sanitary conditions.

As to the first, it was soon decided that the care of the fractures deserved primary consideration. None of these cases had received any treatment whatsoever, and I mean just exactly that. They had no dressings on their wounds. The fractures had not been splinted and, of course, they had had no debridement, sulfa or penicillin therapy. The abdominal cases had either died before our arrival or had started on the road to recovery. We felt that soft tissue wounds would either get well or had already developed tetanus or gas gangrene. Therefore, we set up five tables in order to debride, set, and immobilize all of these various fractures.

As to the second point mentioned above, that of sanitary conditions, it was so unreal it is hard to describe. There were two patients to one small cot. Others were lying on the floor in the corridors, and all were covered with their own excrement. The filth was unbelievable. In spite of the necessity for further crowding this condition, we took one ward and cleared it of patients, then scrubbed the ward with soap, water, and lysol, and then started treating our patients. After a patient was treated, he was moved to this clean ward, and this gradually relieved a little of the congestion in a second ward. This procedure was carried out throughout the hospital, and all wards were cleared completely, scrubbed, and each patient given a single bed.

We were able to do this by using a few nearby buildings which had formerly not been occupied by patients, obtaining some cots from the Army and by discharging, not to their homes but to the streets of Manila, those patients with minor wounds.

The general principles which we followed out were amputations for any very severe fracture which was badly compounded and infected, while in those in which the infection was not overwhelming, and in which there was not too much loss of bone substance, we performed a thorough debridement and placed the patient in plaster cast. The main reason for following this routine was that these patients were going to be turned over the Philippino doctors later, and they could not possibly care for patients in traction or treat adequately a fulminating osteomyelitis of a long bone.

Fractures were set as best we could as we had no X-ray equipment. We were ashamed to treat our fractured femurs with plaster hip spicas, realizing the horrible results which were bound to ensue, but under the curcumstances this was felt to be the wisest course.

One of the first problems which came up was that of anesthesia. We had a choice of ether or sodium pentothal and, for lower extremities, spinal. Induction with ether is difficult and, if performed properly, time consuming. And we had no nitrous oxide, ethylene, or cyclopropane. If spinals were used, it would take most of the time of the only three trained surgeons to give the anesthesia; so we mixed up every morning a large container of weak sodium pentothal solution. Then we selected the five most capable enlisted men and allowed them to give the anesthetic. You may be sure we warned these men of the many dangers which could be encountered in giving any anesthesia and that pentothal was more vicious than others if only due to the fact that it seemed to be so easy. We also impressed upon them that they were not qualified anesthetists and were only being allowed to give this anesthesia due to force of circumstance. It is to the credit of these men and to the anesthesia that over 300 anesthesias were given without a single complication arising therefrom.

During the first week the three Americans performed all the surgery. During the second week, we turned over an increasing percentage to the Philippino doctors and during the last week they performed it all under our supervision.

As to post-operative care. We did not have the time to follow all these patients; so we concentrated in the same building as the operating room all the seriously ill patients. These received penicillin therapy and were seen by one of us twice a day. The remainder were sent to other wards with orders to receive sulfadiazine or sulfathiazole gr. 15 q.4 h. On a few of the wards the patients received more or less just that, but I am afraid on most wards

the patients received no care except too frequent dressings. We told the Philippino doctors in charge of the wards of the dangers of sulfa therapy and to force fluids, but careful follow-up of the blood and urine was, of course, out of the question.

I do not know what our gross mortality rate was, but it was extraordinarily low, particularly when one considers the conditions under which these patients were being treated. This can be explained by the fact that nearly all these patients had been trapped in Jap-held territory for five to seven days following injury with nothing to eat and little to drink, and therefore only the strong or those with minor injuries had survived. When you consider that 54 compound fractured femurs survived a week without any treatment, it makes you realize the tremendous number who were killed and what another huge group it was who received severe injuries and died before they could be rescued.

Probably the two groups of patients most interesting to us were the gas-gangrene and the tetanus. These patients were isolated in one ward and any surgery performed on this group was done in an isolated small room near this ward. We were very fortunate in our treatment of the gas gangrene, anything but with the tetanus. The gas gangrene was treated with high amputation where possible, antitoxin, and large doses of sulfa therapy. About 80% survived. With the tetanus it was an altogether different and sad story. Our total supply of antitoxin was 200,000 units, not really enough to treat one case adequately. And we had 110 cases. We were assured by the consultants and the Army Surgeon that they had wired for large doses to be flown out from the United States, but none had arrived by the time we were recalled to our units.

We performed a few amputations, debrided some wounds, and gave them all sedation. When we left the hospital, of the 110 cases, four had recovered, about ten were improving, and about 60 had died. The remaining were getting worse or just barely holding their own. As far as I know, no cases of tetanus occurred in American soldiers who were fighting and being wounded in the same environment during this time, thus demonstrating the great efficacy of tetanus toxoid.

Our patients were nearly all Philippinos, but there were some Chinese and Japanese as Manila contains a huge Chinese colony and a fair number of Japanese. Nearly every day some ward would break out in a near riot when a Jap or a pro-Jap Philippino was discovered to be a patient in the ward. Then several of our men would have to go to protect the individual concerned from being literally torn limb from limb.

Perhaps many of you have heard General Romulo when he spoke in Roanoke. He stresses the difference between the U. S. Colonial policy and that of the other great powers and how it has paid in this war by the loyalty of the Philippinos. And he is right. The vast majority are fanatically devoted to the American flag, the national anthem, and in fact to Americans and anything American. And, when you look about you and see the schools, the churches, the public health improvements and realize the progress which these people have made under our supervision during the past forty-five years, you are intensely proud of being an American.

Jefferson Hospital.

Atabrine,

Widely used for treatment of malaria by the armed forces, may now be purchased without a doctor's prescription in retail drug stores throughout the country, according to a ruling by the Food & Drug Administration, Washington, D. C.

Announcing the F. & D. A. decision, the Winthrop Chemical Company, Inc., whose laboratories in Rensselaer, N. Y., make the yellow antimalarial tablets, declared packages with new labels and circulars giving therapeutic and suppressive doses will shortly be ready for distribution.

The drug store packages of Atabrine will contain 15 tablets, sufficient for one course of treatment. Meanwhile, the present label, which reads "To be dispensed only by or on the prescription of a physician," may be disregarded. While the new labeling is indicative of the safety of Atabrine, it should not be interpreted as meaning that laymen are qualified to treat malaria.

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TREATMENT OF PUERPERAL MASTITIS

COMMITTEE ON MATERNAL HEALTH
MEDICAL SOCIETY OF VIRGINIA

Recent literature shows little evidence of the impact of the sulfa drugs and penicillin upon the treatment of puerperal mastitis. Austin (*Amer. J. Obst. & Gynec.* **48**:387, 1944) tried an ointment of allantoin 2 per cent, sulfanilamide 5 per cent, and sulfathiazole 5 per cent, in a water miscible base as a prophylactic treatment of the nipples. His results were not impressive. Three out of 212 mothers developed mastitis while still in the hospital and two of these went to abscess formation after leaving the hospital. Fraser (*Brit. M. J.* 1:523, 1944) treated 15 well-developed abscesses with simple aspiration followed by injection of a solution of calcium penicillin. Staphylococcus aureus was the causative agent in all. Pus obtained on the second and subsequent aspirations was sterile and the penicillin was was still active after 48 hours. Five of his cases required surgical drainage. In seven spontaneous drainage occurred. Three cases resolved without drainage.

It appears that the best prophylaxis is cleanliness in the care of the nipples. The old-fashioned paste of bismuth and castor oil seems to be as good a dressing as any for the nipple. The critical times for developing mastitis are: (1) Before the milk forms. The baby should be allowed to nurse only a few minutes. (2) When the patient leaves the hospital or discharges her nurse. At such time she may become careless in her technic of the care of the nipples. (3) When she resumes street clothes the mother is prone to fold the breasts on the chest with a tight brassiere which interferes with circulation. She should be told to use an uplift brassiere. (4) When the milk supply begins to fail, the baby butts the breast and gums the nipple in his efforts to get an adequate supply. The mother should be warned of this danger and a supplementary feeding should be prescribed. Since the staphylococcus is usually the causative organism, the sulfa drugs or penicillin should be useful in preventing abscess formation, provided the treatment is begun early. This reviewer has had no experience with the latter, but sulfanilamide has served him well in a number of instances.

When there is pus formation, aspiration combined with Bier's hyperemia is to be preferred to incision and drainage. The treatment is less painful, the cure takes less time, and there is no deformity. The resultant scar is a mere dot and causes no trouble in subsequent lactations. With a fine needle, 1 per cent procaine is injected in the route to the abscess cavity. A 14 gauge needle is then introduced, and the cavity is evacuated with a Bier's cup. In the light of Fraser's experience it might be well to wash out the cavity with a solution of penicillin before removing the needle. The aspiration is repeated daily until there is no further drainage, which usually occurs in three or four days.

American Board of Obstetrics and Gynecology.

The general oral and pathology examinations (Part II) for all candidates will be conducted at Chicago, from Monday, May 6, through Saturday, May 11. The Palmer House in Chicago will be the headquarters for the Board. Candidates for *re-examination* in Part II must make written application to the Secretary's Office not later than April 15, 1946. Candidates in Military or Naval Service are requested to keep the Secretary's Office informed of any change in address. Deferment without time penalty under a waiver of our published regulations applying to civilian candidates, will be granted if a candidate in Service finds it impossible to proceed with the examinations of the Board.

Applications are now being received for the 1947 examinations. For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh 6, Pennsylvania.

PUBLIC HEALTH

I. C. RIGGIN, M.D.,
State Health Commissioner of Virginia

The report of the Bureau of Communicable Diseases of the State Department of Health for February, 1946, as compared with the same month in 1945, and for the period of January through February, 1946, compared with the same period in 1945, follows:

	Feb. 1946	Feb. 1945	Jan.-Feb. 1946	Jan.-Feb. 1945
Typhoid and Paratyphoid Fever	4	5	11	9
Diarrhea and Dysentery	116	151	221	393
Measles	948	190	1,488	250
Scarlet Fever	274	554	540	913
Diphtheria	44	36	107	62
Poliomyelitis	0	4	1	8
Meningitis	24	33	60	56
Undulant Fever	5	1	7	3
Rocky Mountain Spotted Fever	0	0	0	1
Tularemia	5	8	22	10

VITAL STATISTICS IN MEDICAL SCIENCE, PUBLIC HEALTH AND SOCIAL RESEARCH

The public generally, and in some instances members of the medical profession, have hazy ideas regarding the value of vital statistics. For this reason there follows a detailed statement of the numerous uses to which statistics of this character are put:

1. Vital statistics are of value to the *individual physician and to medical research* in providing the essential facts concerning birth, death, stillbirth, and infant mortality.

Mortality statistics indicate the increase or decrease in the number of deaths, the causes, the geographic locations, and the sex, age and color distribution of decedents. Of special interest to physicians is the study of vital statistics relating to the complications of pregnancy and labor, of causes peculiar to early infancy, and the frequency and cause of stillbirth. In medical research, mortality data are needed in the study of the etiology and epidemiology of specific causes, to show fatality rates, geographic occurrence, time-trends, and the risk of death from various causes at different ages among the sexes and races.

Birth statistics inform the physician of the number of births from year to year, the geographic distribution, and the proportion occurring in hospitals and the number of deliveries without medical attendance.

2. Since vital statistics define the problems and furnish a means of evaluating results of *public health work*, they are a necessary foundation upon which to base public health programs.

Death statistics are an aid to health officials in determining the required scope of campaigns against the principal causes of death. They furnish the health officer data on the age, sex, race, cause of death, and residence of decedents, thereby making possible a comparison of general health conditions in different areas. They also provide an index for the proper allocation of funds for public health activities.

Birth statistics indicate to health authorities the areas in which the greatest need exists for maternal and infant-care programs. From birth certificates, information is obtained by State and local health departments as to persons who should receive literature on infant care, where to find postnatal cases, and other facts of value for infant and maternal welfare.

3. In *economic and sociological fields*, uses for vital statistics are rapidly developing.

In population research, birth and death statistics are essential in making population estimates for intercensal years, and to measure the fertility and mortality of various racial, economic and social groups.

In programs for the prevention of accidents and occupational mortality risks, death statistics are required.

For sociological studies conducted in the colleges and elsewhere the need exists for birth, death, marriage and divorce statistics.

For administrative planning in business enterprises, statistical data on births, deaths, and marriages are requested.

Lastly, natality and mortality statistics are used in the preparation of life tables by insurance companies and are becoming of increasing value in long-range housing programs, school enrollment, social-security plans, and in marketing and consumer research.

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MISCELLANEOUS

Constructive Program of the American Medical Association for the Improvement of Medical Care.

The Board of Trustees of the American Medical Association and the Council on Medical Service of the Association at a recent meeting in Chicago have taken a long step toward protection of the American people against the costs of sickness through participation in a voluntary prepayment sickness plan now developed under the authority of the American Medical Association.

The fundamental step in the development of this plan was the establishment of standards of acceptance for medical care plans which have the approval of the Council on Medical Service of the American Medical Association. Any plan which meets the standards of the Council will be entitled to display the seal of acceptance of the American Medical Association on its policies and on all of its announcements and promotional material. In order to qualify for acceptance, the prepayment plan must have the approval of the state or county medical society in the area in which it operates. The medical profession in the area must assume responsibility for the medical services included in the benefits. Plans must provide free choice of a qualified doctor of medicine and maintain the personal, confidential relationship between patient and physician. The plans must be organized and operated to provide the greatest possible benefits in medical care to the subscriber.

Medical care plans may be in terms of either cash indemnity or service units, with the understanding that benefits paid in cash are to be used to assist in paying the costs incurred for medical service. The standards also include provisions relative to the actuarial data that are required, systems of accounting, supervision by appropriate state authorities and periodic checking and reporting of the progress of the plan to the Council.

Coincidentally with the announcement of these standards of acceptance, there was organized, as a voluntary federation, an organization known as Associated Medical Care Plans, Inc. This independent association will include as members all plans that meet the minimum standard of the Council on Medical Service of the American Medical Association. The Associated Medical Care Plans will undertake to establish coordination and reciprocity among all of these plans so as to permit transference of subscribers from one plan to another and use of the benefits in any state in which a subscriber happens to be located. Under this method great industrial organizations with plants in various portions of the United States will be able to secure coverage for all of their employees. Moreover, it will be possible for the Veterans Administration, welfare and industrial groups as well as government agencies, to provide coverage for the people in any given area through a system of national enrollment. In addition, the Associated Medical Care Plans, Inc., will undertake research and the compilation of statistics on medical care, provide consultation and information services based on the records of existing plans and engage in a great campaign of public education as to the medical service plan movement under the auspices of state and county medical societies.

The Board of Trustees of the American Medical Association also announced the establishment under its Council on Medical Service of a Division of Prepayment Medical Care Plans with a director and a staff who will administer the activities of the Council on Medical Service related to the promotion and development of medical care plans in all of the states.

In announcing its proposals for a nation-wide provision of sickness insurance on a mutual nonprofit basis, the Association through its President and the Board of Trustees authorizes the publication of its complete health program with the ten points, which include the development of services in the field of preventive medicine, maternal and child health, voluntary prepayment plans for protection against the costs of sickness, compensation for loss of wages due to illness, the care of the veteran and the development of a high standard of housing, nutrition, clothing and recreation. The American Medical Association last June through its Board of Trustees and Council on Medical Service announced a 14-point program to improve the health and medical care situation in the United States. In October 1945 the interpretation of these 14 points and methods of implementation were adopted by the Council on Medical Service. In December 1945, the House of Delegates approved the whole program, suggested its rearrangement and directed the Board of Trustees

to keep the program constantly up-to-date so that it will stay at least even with and, if possible, a step ahead of the needs of the public.

With this in mind the Board of Trustees has adopted a restatement of the 14 point program, which clarifies still further the position of the American Medical Association on some of these points and brings into the program more definitely such matters as maternal and child welfare, medical research, the medical care of the veteran and the part to be played by the voluntary health agencies.

This restatement follows:

NATIONAL HEALTH PROGRAM OF THE AMERICAN MEDICAL ASSOCIATION

1. The American Medical Association urges a minimum standard of nutrition, housing, clothing and recreation as fundamental to good health and as an objective to be achieved in any suitable health program. The responsibility for attainment of this standard should be placed as far as possible on the individual, but the application of community effort, compatible with the maintenance of free enterprise, should be encouraged with governmental aid where needed.

2. The provision of preventive medical services through professionally competent health departments with sufficient staff and equipment to meet community needs is recognized as essential in a health program. The principle of federal aid through provision of funds or personnel is recognized with the understanding that local areas shall control their own agencies as has been established in the field of education. Health departments should not assume the care of the sick as a function since administration of medical care under such auspices tends to a deterioration in the quality of the service rendered. Medical care to those unable to provide for themselves is best administered by local and private agencies with the aid of public funds when needed. This program for national health should include the administration of medical care including hospitalization to all those needing it but unable to pay, such medical care to be provided preferably by a physician of the patient's choice with funds provided by local agencies with the assistance of federal funds when necessary.

3. The procedures established by modern medicine for advice to the prospective mother and for adequate care in childbirth should be made available to all at a price that they can afford to pay. When local funds are lacking for the care of those unable to pay, federal aid should be supplied with the funds administered through local or state agencies.

4. The child should have throughout infancy proper attention, including scientific nutrition, immunization against preventable disease and other services included in infant welfare. Such services are best supplied by personal contact between the mother and the individual physician but may be provided through child care and infant welfare stations administered under local auspices with support by tax funds whenever the need can be shown.

5. The provision of health and diagnostic centers and hospitals necessary to community needs is an essential of good medical care. Such facilities are preferably supplied by local agencies, including the community, church and trade agencies which have been responsible for the fine development of facilities for medical care in most American communities up to this time. Where such facilities are unavailable and cannot be supplied through local or state agencies, the federal government may aid, preferably under a plan which requires that the need be shown and that the community prove its ability to maintain such institutions once they are established. (Hill-Burton bill.)

6. A program for medical care within the American system of individual initiative and freedom of enterprise includes the establishment of voluntary nonprofit prepayment plans for the costs of hospitalization (such as the Blue Cross plans) and voluntary nonprofit prepayment plans for medical care (such as those developed by many state and county medical societies). The principles of such insurance contracts should be acceptable to the Council on Medical Service of the American Medical Association and to the authoritative bodies of state medical associations. The evolution of voluntary prepayment insurance against the costs of sickness admits also the utilization of private sickness insurance plans which comply with state regulatory statutes and meet the standards of the Council on Medical Service of the American Medical Association.

7. A program for national health should include the administration of medical care, including hospitalization, to all veterans, such medical care to be provided preferably by a physician of the veteran's choice with payment by the Veterans Administration

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through a plan mutually agreed on between the state medical association and the Veterans Administration.

8. Research for the advancement of medical science is fundamental in any national health program. The inclusion of medical research in a National Science Foundation, such as proposed in pending federal legislation, is endorsed.

9. The services rendered by volunteer philanthropic health agencies such as the American Cancer Society, the National Tuberculosis Association, the National Foundation for Infantile Paralysis, Inc., and by the philanthropic agencies such as the Commonwealth Fund and the Rockefeller Foundation, and similar bodies have been of vast benefit to the American people and are a natural outgrowth of the system of free enterprise and democracy that prevail in the United States. Their participation in a national health program should be encouraged and the growth of such agencies when properly administered should be commended.

10. Fundamental to the promotion of the public health and alleviation of illness are widespread education in the field of health and the widest possible dissemination of information regarding the prevention of disease and its treatment by authoritative agencies. Health education should be considered a necessary function of all departments of public health, medical associations and school authorities.

BOOK ANNOUNCEMENTS

A Future for Preventive Medicine. By EDWARD J. STIEGLITZ, M.S., M.D., F.A.C.P. New York, The Commonwealth Fund. 1945. xvi-77 pages. Price $1.00.

As the world has been undergoing changes, so has medicine in all of its phases. This book suggests a progressive program for the field of preventive medicine in the future.

The author suggests the concept of "construction of health" rather than the usual idea of "prevention and cure of disease" as being a better definition of the preventive medicine that is to be.

A brief review of the accomplishments of preventive medicine in the United States during the past forty years shows: 1) an increase in the life expectancy of the average individual; 2) a decrease in the incidence of numerous diseases, many common to early life, as a result of advancements in environmental control, immunization programs and development of therapeutic agents; and 3) an increase in the incidence of those ailments frequently associated with age and senescence, the so-called degenerative diseases. Some pertinent factors are noted.

While cognizant of many problems, the author predicts that the preventive medicine of the future may well embrace the wider field of improving the health of individuals of all ages. This is to be accomplished: 1) by maintaining the procedures now employed in preventive medicine and improving them whenever possible; and 2) by postponing, if not preventing, the onset of the illnesses related to the stresses of living by developing and improving the techniques for determining their etiology, making early diagnoses and providing effective therapy. Research, education of the public and conducting periodic health surveys of individuals would be essential features of the program. Political control would destroy initiative and suppress imagination although public moneys would probably be necessary to insure the success of the program even though not covering the full cost.

The author presents the material in an understandable and thought-provoking manner. General practitioners are definitely concerned with preventive medicine, many having contributed to its present development. Is it not logical to concentrate on the newer problems in the field and, at the same time, hold fast to the ground already won? Need the taboos, crowded schedules, lack of specific training and inadequacy of techniques for detecting early pathological changes at the present time make us feel that a forward looking program is impracticable or unethical?

Here a reasonable course of advancement in preventive medicine is outlined. The author discusses certain attendant problems, lists some attributes which practitioners will need to acquire and outlines a few procedures for developing his program. Men of medicine may read and ponder the contents of the book with great advantage to themselves and to those whom they would serve.

D. I. FARNSWORTH, M.D.

WOMAN'S AUXILIARY TO THE MEDICAL SOCIETY OF VIRGINIA

President ..... MRS. P. M. CHICHESTER, Abingdon
President-Elect ..... MRS. J. E. HAMNER, Petersburg
Recording Secretary .. MRS. NATHAN SCHUMAN, Alexandria
Corresponding Secretary .. MRS. L. C. BRAWNER, Richmond
Treasurer ..... MRS. REUBEN F. SIMMS, Richmond

Suggested Program of President.

TO THE PRESIDENTS OF THE AUXILIARIES TO THE COUNTY MEDICAL SOCIETIES OF VIRGINIA:

We are now approaching our mid-year mark. Many of you will have very few meetings between now and our next annual meeting.

Will you please check your programs to see how well you have been able to carry out the recommendations of our National Auxiliary as printed in the August 1945 issue of the *Bulletin*, your State President in the December 1945 issue of the VIRGINIA MEDICAL MONTHLY and those of your State Chairmen?

Paramount among the recommendations were those to read the Constitution and By-Laws of our State Auxiliary at one meeting each year that the members may discuss these and become more familiar with the objectives and policies of the Auxiliary; to hold one health meeting a year in cooperation with other groups if this meets with the approval of the local Medical Society; to subscribe to the *Bulletin of the Woman's Auxiliary to the American Medical Association;* and to promote the circulation of *Hygeia* as a means of health education.

It is suggested that one meeting during the spring shall be designated as "Doctor's Day". The program for this day shall include at least five minutes for commemorating the work of doctors. But tribute to the medical profession may be expressed in many other ways, from flowers on the doctor's desk to parties, editorials and recognition in the Churches of the physician's services to the community. The Medical Society should be consulted about the latter.

As we review the past let us plan for the future.

Carlyle said "The goal of yesterday will be the starting point of tomorrow."

MARIE C. CHICHESTER
(MRS. P. M.)

LOCAL AUXILIARIES

Warwick.

The Auxiliary to the Warwick County Medical Society is doing a far-reaching piece of work, under the leadership of Mrs. W. R. Payne, from a health and public relations standpoint. The Auxiliary sponsors classes for expectant mothers in the city of Newport News and in Warwick County. The classes are taught by the Public Health Nurses in the two centers under the direction of the Public Health doctors. The Auxiliary provides the layette and equipment needed for the classes and assists when called upon by the nurses.

Norfolk.

The January meeting of this Auxiliary was held January 22 in the library of the Medical Arts Building, Mrs. C. M. McCoy, president, presiding. This was in the form of a public relations meeting and members of various women's organizations in Norfolk were special guests.

Dr. George A. Duncan, who was for two and one-half years surgeon in charge of orthopedic work in a General Hospital in Italy, addressed the Auxiliary.

In its business session the Auxiliary made plans for a dinner it will sponsor on February 22, in honor of doctors who served in the armed forces now returned to private practice.

Mrs. E. Roy Altizer was appointed legislative chairman.

The members were asked to cooperate with the Norfolk Junior League in its canned foods campaign for the United Nations Relief and Rehabilitations.

Mrs. James W. Anderson read a letter from the Norfolk Chapter, American Red Cross, expressing its appreciation for the Auxiliary's contributions at Christmas time.

This Auxiliary sponsored a dinner February 22, at the Norfolk Yacht and Country Club, in honor of the returned doctors who served in the armed forces. A social hour preceded the dinner, Mrs. Richard Peake and Mrs. Stark Sutton presiding at the punch bowl. Mrs. H. W. Rogers pronounced

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the invocation. Mrs. C. M. McCoy, president of the Woman's Auxiliary to the Norfolk County Medical Society, welcomed the guests and Dr. Foy Vann, president of the Norfolk County Medical Society, introduced the doctors who have served in the armed forces. Dr. W. B. Martin spoke in behalf of the Service doctors, expressing how good it was to be back.

Mrs. Charles Lupton, president-elect of the Woman's Auxiliary to the Norfolk County Medical Society, presented the Medical Society with three books in observance of "Doctor's Day". These were accepted by Dr. Mallory Andrews.

The Granby High School Choral Club Sextette, Miss Agnes Bothne, director, entertained with a delightful musical program.

There were forty-three doctors from the Norfolk County Medical Society who served in the armed forces, twenty-seven (27) of these these having returned to private practice.

The affair was arranged by Mrs. W. E. Butler, social chairman, and her committee: Mrs. H. W. Rogers, Mrs. R. M. Reynolds, Mrs. C. C. Cooley and Mrs. M. F. Brock.

(MRS. M. F.) CLARA P. BROCK,
Chairman, Press and Publicity.

Northampton-Accomac.

Mrs. S. S. Kellam of Cape Charles presided at the quarterly meeting of this Auxiliary on January the 8th, following luncheon at the home of Mrs. C. E. Critcher in New Church. After a short business session, a most interesting and instructive talk on "Medicine in Japan" was given by Mrs. Harry H. Monroe, wife of the Presbyterian minister at Cape Charles.

The Spring meeting will be held on April the 9th, at the home of Mrs. Fred Edmonds in Accomac.

CATHERINE R. TROWER (MRS. HOLLAND),
Chairman, Press and Publicity.

Alexandria.

The February meeting of this Auxiliary was held at Carter Hall, Alexandria, on the 4th of the month, with Mrs. S. M. Novak presiding. Mrs. H. A. Latane gave an interesting report on the mid-Winter meeting of the State Board. A bridge party was planned for the Spring as the main project of the year, and it was voted to contribute $10.00 to the Jane Todd Crawford Memorial Fund, $5.00 to the Maintenance Fund, and $25.00 to the U. S. O. supper. A social hour followed the meeting.

ZELLA L. ARNETTE (MRS. C. E.),
Press and Publicity Chairman.

"Painless" Childbirth Facts Explained to Mothers.

From the beginning of time women have feared childbirth. Old wives' tales, back fence gossip, and ill-advised remarks and suggestions of friends and relatives have caused women to fear childbirth. To allay these fears in the minds of thousands of expectant mothers, The Upjohn Company, manufacturers of pharmaceuticals, has released the thirteenth health message in the "Your Doctor Speaks" educational health campaign. Appearing in leading magazines with circulations running into many millions, this message of hope will direct expectant mothers to their doctor for the helpful knowledge which is readily available.

The handsome painting of a mother and child by S. Simkhovitch, well-known American painter, which illustrates the message, is a charming portrayal of maternal affection. The painting is included, with others used to illustrate the messages, in a traveling exhibition being circuited to museums throughout the nation.

Erection of New Army Medical Library Building Planned.

Plans which are now under way for the erection of a new building for the Army Medical Library will be furthered this spring when a request for funds will be included in the War Department estimate for the fiscal year 1947, scheduled to come before Congress.

The building, which architects estimate will cost $10,000,000, will be located on land named as part of the proposed postwar development of East Capitol Street from the National Capitol eastward to Anacostia. A board to review all matters relating to the new building has been set up.

Editorial

The Place of Postpartum Examination in Cancer Prevention

APRIL is Cancer Control Month. The outlook for the control of cancer is definitely promising. The Statistical Bulletin of the Metropolitan Life Insurance Company states that there is definite evidence that cancer patients are seeking medical care earlier in the course of the disease and that their chances of survival have improved materially. The Bulletin for July 1945 published an interesting table showing the trend of cancer mortality, by site, among white males and white females of their policy-holders between the ages of 1 and 74. The rates were adjusted to discount the effect of the aging of the group. In this table the death rates are per 100,000. In the five year period 1911-1915, the rate for cancer of the female genital organs was second only to that of cancer of the stomach, and/or liver. It was 26.5 for the genital organs as compared to 30.9 for cancer of the stomach and/or liver in females and 33.5 in males. In 1941-1944 the rates had dropped to 24 for males with cancer of the stomach and/or liver and 14.3 for females with cancer of the stomach and/or liver, but only to 21.6 for cancer of the female genital organs. Cancer of the female generative organs now leads all other forms of cancer deaths among females.

This brings into focus at once the importance of postpartum examinations. Cancer of the cervix is the commonest form of cancer of the female genital organs and cancer of the cervix almost without exception occurs only in parous women. The need for periodic examination should be stressed in every cancer prevention campaign. The group that needs this most is the group of women who have borne children.

Women are beginning to realize the importance of postpartum examinations. At four to six weeks after the birth of the baby a survey should be made of what damage, if any, the birth of the baby has caused. Malpositions can best be corrected at this time and infections of the cervix can be treated. Many women show a transient hypertension in the puerperium and not a few are anemic. In addition general hygienic matters should be discussed, including the timing of future pregnancies. The importance of periodic examinations should be stressed and the patient should be urged to form the habit of periodic health examinations. There is no better time for such propaganda.

The Treatment of Placenta Previa

JAGGARD'S dictum, that there is no expectant plan of treatment for placenta previa, has been accepted unquestioned by the profession. The fetal mortality has been high regardless of whether the baby was delivered by cesarean section or *per vaginam*. Before the time when hospitals became readily available the general practitioner treated these emergencies in various ways, packing, bags, accouchement forcé, etc. Now he usually packs the vagina and sends the patient to the hospital. The editor has always questioned the wisdom of such treatment and for a number of years has asked at medical meetings if anyone had ever seen a patient bleed to death at her first warning hemorrhage. He has yet to hear of such a case. The vaginal pack is worse than useless. It does not control the bleeding; it may even make it worse, and it certainly increases the risk of infection. Recently, Herman Johnson of Houston has questioned the present methods of treating placenta previa as an obstetrical emergency.

C. H. Macafee, who has had charge of all the cases of placenta previa in the Royal Maternity Hospital in Belfast since 1937, studied this question from the standpoint of

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fetal mortality. He had two main objectives: (1) to reduce the fetal mortality without unfavorably affecting the maternal death rate, and (2) to preserve an open mind with regard to the appropriate treatment of a particular case. He is a strong advocate of a vaginal examination in every case of suspected placenta previa, but the time of the examination must be carefully chosen. In order that the patient be carried as close to term as possible in the interest of the baby, the vaginal examination should not be done until a decision is to be made as to the method of delivery. It has been his experience that a severe hemorrhage rarely occurs unless a vaginal examination is done. There has been nothing in his experience to confirm the belief that recurrent hemorrhages tend to lead up to a catastrophic hemorrhage. He is convinced that it is not necessary to keep a primigravida with placenta previa in a hospital, provided she is within reasonable distance of the hospital and is warned not to permit any vaginal examination before admission.

He reports 174 cases of placenta previa, proven by vaginal examination. One mother was lost. The gross fetal mortality was 23.5 per cent. In the five years previous to the change in policy 76 cases were admitted to the same hospital. The maternal mortality in these cases was 2.6 per cent and the fetal mortality was 51.3 per cent. In the last 47 cases of Macafee's series the average weight of the baby was 6 pounds 12 ounces and the mortality was 6 per cent, whereas in the first 47 cases before the minds of the staff could be rid of Jaggard's dictum completely, the average weight of the baby was 5 pounds 2 ounces, and the mortality was 47 per cent. Such figures are impressive and make us wonder if we should not revise our teaching in regard to the treatment of placenta previa.

Medical Examiner System for the State of Virginia

WHEN Governor Tuck signs Senate Bill Number 64, a bill to revise the laws of Virginia so as to provide a modern medical examiner system for investigating deaths arising under suspicious or unusual circumstances, Virginia will have one of the best laws in the country. The details of the bill as originally prepared were discussed in the House of Delegates of the Medical Society of Virginia in Roanoke in 1943 (*Va. Med. Mo.* 70:627, 1943), and the revised bill as passed contains substantially the same provisions. The advantages of the Medical Examiner System over the old Coroner System were discussed in an editorial by Dr. Moritz (*ibid:* 70:164, 1943). The bill which the Legislature passed at its closing session provides the ways and means for adequately investigating all sudden, unexpected, unattended deaths, and those occurring under suspicious circumstances. It has been the experience elsewhere that many suspicious deaths are due to natural causes and occasionally the reverse is true. We will now be able to have the whole truth. Dr. Wyndham Blanton, chairman, and his committee, Drs. M. B. Beecroft, Kenneth Graves, J. E. Wood, Jr., E. G. Scott, J. S. Scherer, W. D. Kendig, G. C. Tyler, G. C. Williams, W. O. Bailey, A. B. Hodges, S. H. Garst, P. W. Miles, are to be congratulated on the successful outcome of their efforts.

The Army Medical Library and Its Cramped Quarters

THE Army Medical Library renders greater service to the Medical Profession than any Federal Institution. Unquestionably it is the greatest medical library in the world. Its vast store of knowledge is open to every doctor in the country. Any book can be consulted if one cares to pay a visit to Washington, and the majority of the

books are available through loans to local libraries. In 1939 Colonel Harold W. Jones broadened the Library's sphere of usefulness by inaugurating a microfilm service. With this service the doctor does not need the intermediary of a local library, if he knows what he wants. And that brings up the second and even greater service that the Army Medical Library renders the Medical Profession. In 1876 Colonel Billings began the stupendous task of furnishing a classified bibliography of medical literature, in the form of the Index Catalogue of the Surgeon General's Library, and the Index Medicus. The first volume of the Index Catalogue appeared in 1880 and the last volume, Volume IX of the fourth series, was issued in 1945. The Index Medicus appeared monthly from 1879 until 1927 except for a hiatus of three years (1900-1902). In 1927 the American Medical Association took over the Index Medicus and with the cooperation of the Army Medical Library has published the Quarterly Cumulative Index Medicus until the present time. The most recent venture in bibliographical service of the Army Medical Library is "Current List of Medical Literature". This is mailed out weekly to subscribers, and the doctor may now keep up with medical literature as it is published.

The Library is disgracefully housed. The editor has had the privilege of showing many distinguished medical visitors to this country through the Library. Their reaction is almost always the same. They marvel at the wonderful collection, but they cannot understand how a great nation can treat one of its great institutions so niggardly. The present building was completed in 1887. In spite of the tremendous increase in the activities of the Library, the building remains the same. The lack of space is beginning to show not only on the books but also in the service the Library is able to render. There was a time when one could always count upon finding everything he wanted in the Library. It was a distinct shock some ten years ago, when we wanted to see Hermann's *Die Eklampsie und ihre Prophylaxe*, and were told that the Library did not have a copy. Later on some of our requests were marked "cannot be located". This happens more frequently now, and can be readily understood when one learns of the overcrowded condition of the building.

Before World War II plans were made to remedy this situation. Congress passed a bill authorizing a new Library and Museum Building to be located on Capitol Hill. It also appropriated $130,000 for plans and specifications to be drawn. This was done, and hearings were in progress before a committee in Congress advocating a new Army Medical Library Building at a cost not to exceed $4,750,000, when the war broke out. This changed everything. Some 90,000 irreplacable books were moved to Cleveland for safekeeping, and incidentally for much needed repairs. These volumes rest contentedly in fireproof, air-conditioned quarters, and are quite accessible, if one goes to Cleveland. It must, however, add considerably to the administrative difficulties of the Library for its foundation to be in Cleveland and its working parts to be in Washington.

Congress is now being asked for $10,000,000 for a new medical library building. Increased costs and enlargement of the original plans account for the higher figure. Hearings before the Budget and Congressional Committees are soon to be had. It is extremely important for all doctors to let their Congressmen know what the Army Medical Library means to them.

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Societies

The Wise County Medical Society

Met February 28th in the Appalachian Hotel, Appalachia, as guests of Dr. C. B. Bowyer. A banquet, with all the trimmings, was enjoyed by everyone, following which the program was presented. Dr. H. H. Howze, Norton, read a paper on "Some Precautions in the Administration of the Sulfa Drugs" and showed the result of study and analysis of a number of cases treated in Norton General Hospital for complications following this treatment. Dr. F. S. Givens, Norton, spoke on "Distribution of Barbiturates." "Treatment of Burns" was the subject of Dr. Rupert E. Kelly who gave all the latest effective remedies and also told in detail why some of the recent treatments have been discarded. A full discussion followed the presentation of all these subjects.

At the business session, the following officers were elected: President, Dr. J. D. Culbertson, Coeburn; vice-presidents, Drs. B. C. Henson, Roda; Glenn T. Foust, Jr., Norton; and F. S. Givens, Wise; secretary-treasurer, Dr. T. J. Tudor (re-elected), Norton. Dr. H. H. Howze of Norton was elected to the Board of Censors. New members admitted at this time are Dr. G. R. Evans of Dunbar and Dr. G. T. Foust, Jr. of Norton.

The Society will be entertained by Dr. C. L. Harshbarger and his staff at the Norton General Hospital in Norton in April.

The Williamsburg-James City County Medical Society

Held a business meeting at the Williamsburg Lodge on February the 15th. Dr. Henry E. Davis, Williamsburg, was elected president for the coming year, to succeed Dr. A. M. Sneed of Toano, retiring president. Dr. J. R. Parker of Providence Forge was elected Vice-President, and Dr. E. Beamer Maxwell of Williamsburg was re-elected Secretary-Treasurer.

During the past few years it has been difficult for all members to attend the meetings, but many interesting programs have been presented. It is hoped that a more active society can be developed with the pressure of work lessening.

The society feels that it has been most fortunate in the fine support and active interest from Dr. J. E. Barrett and his staff at the Eastern State Hospital, of which the Secretary-Treasurer is a member. The group extended congratulations to the State of Virginia in keeping Dr. Barrett and hopes that he will continue to be an active member of the local society.

Roanoke Academy of Medicine.

On March the 4th, the Academy held a dinner meeting at Hotel Roanoke. The guest speaker for this occasion was Dr. Donald G. Anderson, Dean of Medicine at the Boston University School of Medicine, whose subject was "Indications for, and the Dosage of Penicillin". This was the only paper on the program and was followed by a question and answer period.

Dr. T. J. Hughes and Dr. George S. Bourne, both of Roanoke, are president and secretary, respectively, of the Academy.

Rockingham County Medical Society.

According to notice just received, Dr. E. B. Miller, Elkton, is president, and Dr. William H. Nicholson, also of Elkton, is secretary-treasurer of this society.

Norfolk County Medical Society.

Dr. Kenneth L. Pickrell, Associate in Surgery and Head of the Division of Plastic Surgery at Duke University School of Medicine, Durham, N. C., was guest speaker before this Society at its meeting on February the 25th, his subject being Plastic Surgery.

Virginia Peninsula Academy of Medicine.

At the regular meeting of the Academy on March 18th, Dr. Ruth Whittemore, Department of Pediatrics, Johns Hopkins Hospital, spoke on the Surgical Treatment of the Tetralogy of Fallot. Dr. Harvey G. Bland presided and there was an attendance of seventy-eight. Dr. C. D. Bradley is secretary-treasurer.

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News

Medical College of Virginia.

The one hundred ninth commencement exercises of the Medical College of Virginia were held in Richmond on March 22nd. The commencement address was made by J. Earl Moreland, A.M., LL.D., President of Randolph Macon College, Ashland. The Honorary Degree of Doctor of Science was awarded to Colonel John Ruxton Wood, Medical Corps, Army of the United States, Chief, Medical Division, Chemical Warfare Service.

There were a total of one hundred eighty-three graduates, composed of eighty-nine in medicine, thirty-one in dentistry, thirteen in pharmacy, and fifty in nursing. The following are graduates in Medicine with hospital appointments:

MEDICAL COLLEGE OF VIRGINIA, Richmond—Drs. Richard Norton Baylor, Richmond; David Milton Dumville, Richmond; Joseph Barnette Earnhardt, Greensboro, N. C.; Abraham Jacob Freund, Tappahannock; James Riley Gatherum, Athens, W. Va.; Richard Lemmon Hughes, Glen Jean, W. Va.; George William Hurt, Roanoke; Randolph Mott Jackson, Leesburg; Paul Alvin Robinson, Walton, Ky.; Robert Lee Sommerville, Clarksburg, W. Va.; Marca Isabel Taliaferro, Richmond; Franklin Chandler Turner, Portsmouth; Charles Newton Van Horn, Hamlin, W. Va.; and Richard Kennon Williams, Richmond.

STUART CIRCLE HOSPITAL, Richmond—Drs. Edward Mitchell Eppes, Richmond; and Henry Carl Messerschmidt, Jr., Richmond.

JOHNSTON-WILLIS HOSPITAL, Richmond—Drs. Robert Emerson Fultz, Butterworth; and Horace Eugene Perkins, Richmond.

THE TUCKER HOSPITAL, Richmond—Dr. Charles Elroy Llewellyn, Jr., Richmond.

DEPAUL HOSPITAL, Norfolk—Drs. Alice Swecker Huff, Roanoke; Samuel Hammond Huff, Jr., Roanoke; and Richard Courtney Reed, Norfolk.

UNITED STATES NAVAL HOSPITAL, Norfolk—Dr. Robert Daniel Keeling, Keysville.

UNITED STATES MARINE HOSPITAL, Norfolk—Dr. James Harry Bocock, Richmond.

LEWIS-GALE HOSPITAL, Roanoke—Drs. William Harper Barney, Altavista; and Matthew Lyle Lacy, II, Harrisonburg.

UNIVERSITY OF VIRGINIA HOSPITAL, Charlottesville—Dr. John Alexander Gill, Richmond.

UNITED STATES NAVAL HOSPITAL, Portsmouth—Dr. William Byrnes Cecil, Dublin.

OHIO VALLEY GENERAL HOSPITAL, Wheeling, W. Va.—Drs. John Paul Bing, Mt. Hope, W. Va.; and Richard Custer Wallace, Charleston, W. Va.

CHARLESTON GENERAL HOSPITAL, Charleston, W. Va.—Drs. Robert Ellsworth Gibson, Charleston, W. Va.; and James Dolan Mathias, Mathias, W. Va.

CHESAPEAKE AND OHIO HOSPITAL, Huntington, W. Va.—Dr. Robert Vernon Larrick, Gore.

SAINT FRANCIS HOSPITAL, Pittsburgh, Pa.—Drs. Ralph Ephriam Berman, Beckley, W. Va.; and Albert Pantalone, Farmington, W. Va.

THE PHILADELPHIA GENERAL HOSPITAL, Philadelphia, Pa.—Dr. Thomas Garland Potterfield, Charleston, W. Va.

ALLEGHANY GENERAL HOSPITAL, Pittsburgh, Pa.—Dr. George Frederick Thiers, Holliday's Cove, W. Va.

UNITED STATES NAVAL HOSPITAL, Philadelphia, Pa.—Dr. John Cadwell Wingfield Campbell, New York, N. Y.

FRANKLIN SQUARE HOSPITAL, Baltimore, Md.—Dr. Mary Elisabeth Case, Lake City, Fla.

UNION MEMORIAL HOSPITAL, Baltimore, Md.—Dr. Albert Henry Dudley, Jr., Baltimore, Md.

WEST BALTIMORE GENERAL HOSPITAL, Baltimore, Md.—Dr. Harry Teter Linger, Clarksburg, W. Va.

UNIVERSITY HOSPITAL, Baltimore, Md.—Dr. Gerald Arthur Martin, Street Post Office, Md.

UNITED STATES NAVAL HOSPITAL, Bethesda, Md.—Dr. John Lewis Read, Camden, N. J.

UNITED STATES MARINE HOSPITAL, Baltimore, Md.—Drs. Wyson Curry, Jr., Montgomery, W. Va.; Eugene Elihu Hutton, Jr., Huttonsville, W. Va.; George Lawton Lemon, Lewisburg, W. Va.; and Stuart McGuire Sessoms, Roseboro, N. C.

SAINT MARY'S HOSPITAL, Rochester, N. Y.—Dr. John Robert Fitzgerald, Pittsburgh, Pa.

QUEENS GENERAL HOSPITAL, Jamaica, N. Y.—Drs. Ivan Graham Freed, Harrisonburg; and Daniel Ross, New York, N. Y.

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PRESBYTERIAN HOSPITAL, New York, N. Y.—Dr. William Allen Fuller, South Boston.

UNITED STATES NAVAL HOSPITAL, St. Albans, N. Y.—Dr. Arthur Waldo Stoolfire, West Alexander, Pa.

UNITED STATES MARINE HOSPITAL, Staten Island, N. Y.—Drs. William Clayton Robertson, Richmond; and Jack Clarence Woodson Warnock, Huntington, W. Va.

CHARLOTTE MEMORIAL HOSPITAL, Charlotte, N. C.—Dr. Sam Booker Dillard, Draper, N. C.

REX HOSPITAL, Raleigh, N. C.—Dr. Van Wyke Gunter, Sanford, N. C.

THE CITY HOSPITAL, Winston-Salem, N. C.—Dr. James William Johnston, Elon College, N. C.

TOURO INFIRMARY, New Orleans, La.—Drs. Rowland Harvey Burns, Lebanon; Alvin Benzion Herbert Mirmelstein, Newport News; and Robert Patrick Moore, Hampden-Sydney.

SOUTHERN BAPTIST HOSPITAL, New Orleans, La.—Dr. Edward Kent Carter, Gate City.

UNITED STATES MARINE HOSPITAL, New Orleans, La.—Dr. William Edward Copenhaver, Crockett.

UNIVERSITY OF CALIFORNIA HOSPITAL, San Francisco, Calif.—Dr. Claude C. Coleman, Jr., Richmond.

UNITED STATES NAVAL HOSPITAL, Mare Island, Calif.—Dr. Malcolm Earle Hunter, Jr., Richmond.

THE QUEEN'S HOSPITAL, Honolulu, Hawaii—Dr. Scott Cree Brainard, Honolulu, Hawaii.

LAKEWOOD HOSPITAL, Lakewood, Ohio.—Dr. Charles Harry Brant, Lakewood, Ohio.

CINCINNATI GENERAL HOSPITAL, Cincinnati, Ohio—Dr. Jack James Schwartz, Newark, N. J.

CLEVELAND CLINIC, Cleveland, Ohio—Dr. Philip Gordon ReMine, Richmond.

BARNES HOSPITAL, St. Louis, Mo.—Dr. James Webster Brooks, Winchester.

HARPER HOSPITAL, Detroit, Mich.—Dr. Edward Franklin Counts, Jr., South Charleston, W. Va.

THE GRACE HOSPITAL, Detroit, Mich.—Dr. William Richard McCune, Gassaway, W. Va.

ARECIBO DISTRICT CHARITY HOSPITAL, Arecibo, P. R.—Dr. Rafael Cuevas-Zamora, Rio Piedras, P. R.

VANDERBILT UNIVERSITY HOSPITAL, Nashville, Tenn.—Dr. Austin Ingram Dodson, Jr., Richmond.

UNIVERSITY OF CHICAGO CLINICS, Chicago, Ill.—Dr. Rupert Stanley Hughes, Jr., Richmond.

GARFIELD PARK COMMUNITY HOSPITAL, Chicago, Ill.—Dr. Charles Edward Ward, Parkersburg, W. Va.

PRESBYTERIAN HOSPITAL, Chicago, Ill.—Dr. William Chisholm Winter, Jr., Richmond.

SAINT MONICA'S HOSPITAL, Phoenix, Ariz.—Dr. Elmore Porter Kalbaugh, Jr., Christobal, Panama, C. Z.

THE BOSTON CITY HOSPITAL, Boston, Mass.—Drs. Casper Sidney King, Lynchburg; and Raymond Edward Stone, Oradell, N. J.

GORGAS GENERAL HOSPITAL, Panama Canal Zone—Dr. Charles Webster Massey, Newport News.

JOHN SEALY MEMORIAL HOSPITAL, Galveston, Tex.—Dr. Lawrence George May, Wind Gap, Pa.

UNITED STATES NAVAL HOSPITAL, Corpus Christi, Tex.—Dr. Lawton Frank Douglass, Citra, Fla.

THE UNIVERSITY HOSPITALS, Oklahoma City, Okla.—Dr. David Herman Miller, Marietta, Ohio.

JAMES M. JACKSON MEMORIAL HOSPITAL, Miami, Fla.—Dr. George Maynard Nipe, Dayton.

GALLINGER MUNICIPAL HOSPITAL, Washington, D. C.—Dr. Edward Howard Scherr, Petersburg.

MONTREAL GENERAL HOSPITAL, Montreal, Canada—Dr. Clayton Lay Thomas, Paducah, Ky.

UNITED STATES NAVAL HOSPITAL, Jacksonville, Fla.—Drs. Marvin Garten Burdette, Oak Hill, W. Va.; and Charles William Holcomb, Sutton, W. Va.

KING COUNTY HOSPITAL, Seattle, Wash.—Dr. Richard Dale Wilson, Port Orchard, Wash.

Personnel Changes, State Department of Health.

Dr. William Grossman, Director of the Bureau of Communicable Diseases, resigned this position as of April 1, to take a post-graduate course in medicine at the University of Virginia.

Dr. Harry H. Henderson, Assistant Epidemiologist, also resigned this position as of April 1, to take a post-graduate course in medicine at the Medical College of Virginia.

Dr. E. M. Holmes, Jr., resumed his position as Director of the Division of Venereal Diseases, as of March 15. He recently was released from the Army.

Veterans Loan Fund.

The Council of the Medical Society of Virginia, at its winter session, authorized the setting aside of a fund of $10,000 to be used in loans to returning veterans for the purpose of post-graduate education or establishing themselves in practice.

This is to be administered by a committee appointed by the Council and any veteran interested should communicate with the executive secretary of the Society, at 1200 East Clay Street, Richmond 19.

Second Refresher Course in General Medicine.

A two-week Refresher Course in General Medicine was given at the Medical College of Virginia, March 4-16, 1946. This was the second of four courses to be given alternately by the University of Virginia and the Medical College of Virginia every three months from December 1945 to September 1946.

Thirty-three lectures, eighteen clinics and thirty-six ward rounds were conducted by members of the faculty.

Guest speakers were Dr. Frederick J. Brady, Washington, Surgeon, United States Public Health Service; Dr. Harrison F. Flippin, Philadelphia, Consultant in Chemotherapy to National Research Council; Dr. Edward C. Hamblen, Durham, Associate Professor of Obstetrics and Gynecology, Duke University; Dr. Chester M. Jones, Boston, Clinical Professor of Medicine, Harvard Medical School; Dr. Edwin P. Lehman, Charlottesville, Professor of Surgery and Gynecology, University of Virginia; Dr. Henry B. Mulholland, Charlottesville, Professor of Practice of Medicine, University of Virginia; Dr. Elmer L. Sevringhaus, Madison, Professor of Medicine, University of Wisconsin; Dr. Austin Smith, Chicago, Secretary Council of Pharmacy and Chemistry, American Medical Association.

Forty physicians enrolled in and attended the course. Of these, two were civilian physicians, two were still in the Services, and thirty-six were Veterans.

The third course of this series will be given at the University of Virginia Medical School in Charlottesville in June, and the last at the Medical College of Virginia, Richmond, in September 1946. More detailed information may be obtained from Dr. Staige D. Blackford, Box 1725, University Post Office, Charlottesville, or Dr. James P. Baker, Box 94, Medical College of Virginia, Richmond.

The Virginia Society of Ophthalmology and Oto-Laryngology

Will hold its annual meeting at Hotel Roanoke, Roanoke, on May the 4th, under the presidency of Dr. Meade Edmunds of Petersburg. Guest speakers for the meeting will be Dr. Arthur T. Ward, Johns Hopkins Hospital, and Dr. A. E. Maumenee, Wilmer Institute of Johns Hopkins Medical School. Further information with regard to the meeting may be obtained from Dr. Francis H. McGovern, secretary, of Danville.

Promotions in the Service.

Dr. Robert W. McCullough, Charlottesville, has been promoted to the rank of Lieutenant Colonel.

Dr. Edward G. Face, Richmond, has been promoted to a captaincy in the Medical Corps of the Army.

Back in Civilian Practice.

In addition to those previously announced in the MONTHLY, we have been advised that the following members of the Medical Society of Virginia have been released from Service and resumed practice:

Dr. E. L. Alexander, Newport News.
Dr. John E. Alexander, Vienna.
Dr. E. S. Berlin, Wytheville (now Norfolk).
Dr. Charles H. Bondurant, Riverton.
Dr. Leland C. Brown, Staunton.
Dr. R. D. Butterworth, Richmond.
Dr. Beverley B. Clary, Richmond.
Dr. Robert F. Cline, Winchester.
Dr. Joseph E. Cox, Waynesboro.
Dr. Henry C. Davis, Bluefield, W. Va.
Dr. Edward A. Delarue, Richmond.
Dr. Joseph M. Dixon, Roanoke.
Dr. E. C. Drash, Charlottesville.
Dr. F. L. Finch, Richmond.
Dr. G. S. Fitz-Hugh, Charlottesville.
Dr. J. B. Funkhouser, Marion (now V.A. Adm., Richmond).
Dr. Charles F. Gaylord, Staunton.
Dr. Thomas A. Gibson, Winchester.
Dr. E. S. Groseclose, Lynchburg.
Dr. Gordon D. Hall, Dumbarton.
Dr. G. G. Himmelwright, Newport News.
Dr. E. M. Holmes, Richmond.
Dr. H. B. Holsinger, Farmville.
Dr. Thomas J. Humphries, Roanoke.
Dr. Frederick M. Jacobs, Roanoke.
Dr. William A. Johns, Richmond.
Dr. Herbert C. Jones, Petersburg.
Dr. John H. Judson, Arlington.
Dr. Bernard Katzen, Roanoke.
Dr. Prentice Kinser, Danville.
Dr. Edmund LaPrade, Richmond.

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Dr. Byrd S. Leavell, Charlottesville.
Dr. Claude M. Lee, Jr., Charlottesville.
Dr. Henry Lee, Roanoke.
Dr. William Lueders, Jr., Staunton.
Dr. Lewis C. Lush, Richmond.
Dr. J. R. McGriff, Arlington.
Dr. J. E. Marable, Newport News.
Dr. C. B. Martin, Nokesville.
Dr. James A. Miller, Winchester.
Dr. Thos. W. Murrell, Jr., Richmond.
Dr. Charles T. Nicholson, Alexandria.
Dr. C. A. Nunnally, Fredericksburg.
Dr. Forrest E. Oglesby, Oceana (now Emporia).
Dr. Wilmer H. Paine, Charlottesville.
Dr. Charles H. Patterson, Lynchburg.
Dr. Williams E. Pembleton, Richmond.
Dr. W. L. Peple, Jr., Richmond.
Dr. Wellford C. Reed, Richmond.
Dr. William L. Schafer, Alexandria.
Dr. William P. Terry, Blackstone.
Dr. James L. Thomson, Norfolk.
Dr. Clary C. Trice, Richmond.
Dr. E. T. Trice, Richmond.
Dr. Leo M. Solet, Arlington.
Dr. W. E. Vermilya, Clifton Forge.
Dr. A. D. Ferguson White, Lynchburg.
Dr. Mortimer H. Williams, Roanoke.
Dr. Frank B. Wolfe, Coeburn.
Dr. Harry B. Yeatts, Danville.

Dr. J. B. Funkhouser,

Who was connected with the staff of the Southwestern Virginia State Hospital in Marion, at the time of entering service with the 45th General Hospital, has been released from service and is now with the Veterans Administration at McGuire General Hospital, Richmond. He is acting chief of the department of neuro-psychiatry at this hospital.

Dr. G. G. Himmelwright,

Class of '37, Medical College of Virginia, who entered the medical corps of the U. S. Army just after completing four years of hospital internship and residencies, has recently been separated from the service and has located for practice in Newport News, with offices in the Medical Arts Building.

To Enter Army.

Dr. A. William Thompson and Dr. Herbert D. Gullick, both of whom graduated in medicine from the University of Virginia in 1945, expect to enter the medical corps of the Army of the United States in April. Dr. Thompson has been interning at St. Louis City Hospital, and Dr. Gullick at Albany (N. Y.) Medical School Hospital.

Alumni Association, Medical College of Virginia.

At the meeting of the Alumni Association on March 22, Dr. Roshier W. Miller was elected trustee-emeritus of that organization. Dr. Waverly R. Payne of Newport News was re-elected president, and Dr. Harry Lee Claud of Washington, D. C. was named president-elect. Dr. W. Henry Street of Richmond was re-elected secretary, and Dr. Harvey B. Haag, also of Richmond, was named treasurer.

Dr. Angus K. Wilson,

Formerly of Norfolk, is now located in Salt Lake City, Utah, where he is associated with Dr. James P. Kerby in the practice of radiology—diagnosis and therapy.

Dr. Ernest Serrano,

Formerly of Waynesboro, who is on terminal leave from service in the Navy, has located in Hollywood, Florida, where he is resuming private practice, with offices in the Professional Building.

American College of Chest Physicians.

The next oral and written examinations for Fellowship in the College will be held at San Francisco on June 29, 1946. Applicants for Fellowship in the College who plan on taking the examination should communicate with the Executive Secretary, American College of Chest Physicians, 500 North Dearborn Street, Chicago 10, Illinois.

The 12th annual meeting of the College is scheduled to be held at the Sir Francis Drake Hotel, San Francisco, June 29-30, July 1-2.

Dr. G. Foard McGinnes,

Medical Director of the American Red Cross, has been named vice-chairman in charge of the newly-established Office for Health Services. This new office groups together all Red Cross services relating to health and medical activities: the office of the medical director, the nursing, nutrition and disaster medical services, and first aid, water safety and accident prevention. In addition to being responsible for Red Cross health and medical activities, Dr. McGinnes will maintain liason with the Offices of the Surgeon General of the Army, Navy, and Public Health Service, and with other medical and health agencies.

Dr. McGinnes went to Washington in October, 1943, as national medical director of the Red Cross.

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He is a native of Virginia and a graduate in medicine from the University of Virginia. He was connected with the work of the Virginia State Department of Health for several years.

The American College of Surgeons

Will hold its thirty-second Clinical Congress at the Waldorf-Astoria, New York, September 9 to 13, inclusive. Plans include the usual extensive program of demonstrations, scientific sessions, panel discussions, symposia, forums, Hospital Standardization Conference, medical motion pictures, business meetings, and educational and technical exhibits, which will be held in the headquarters hotel, and operative and non-operative clinics in the local hospitals.

This will be the first Clinical Congress since the meeting in Boston in 1941. Since that time, 2,744 surgeons have been received into fellowship in absentia, and the formal initiation ceremonies on the opening night, always impressive, will be exceptionally so this year because of the large number of new Fellows admitted during the past four years who are expected to be present.

Dr. W. Edward Gallie of Toronto, President, and other officers, Regents, and Governors have remained in office since 1941 because of the cancellation of annual meetings of the Fellows. Especial interest will also therefore be attached to the installation of the officers-elect, headed by Dr. Irvin Abell, Chairman of the Board of Regents, as President.

Dr. Howard A. Patterson and Dr. Frank Glenn of New York City are Chairman and Secretary respectively of the Committee on Local Arrangements. Dr. Henry Cave of New York, a member of the Board of Regents of the College, is also active in directing the local plans for the meeting, attendance at which is usually around five thousand surgeons and hospital representatives.

Dr. W. H. Bruce,

Formerly of Pennington Gap, announces his removal to Dungannon.

Dr. Leo Solet,

Recently released from Service, resumed practice in Arlington, the first of this month, with offices in Arlington Medical Center.

Dr. William J. Hagood, Jr.,

Recently discharged from the Army of the United States with the rank of Captain, is now located in Clover, and associated with his father, Dr. J. D. Hagood, in the practice of medicine. Captain Hagood is a member of the class of '43, Medical College of Virginia.

Dr. Paul W. Bowden,

Formerly connected with health work in Virginia, but more recently of Oakland, California, has returned to Virginia and is now engaged in private practice in Arlington.

Dr. E. W. Dodd,

Buchanan, has retired from practice after a number of years of active work in that section. Dr. G. M. Wright of Bridgewater has taken over Dr. Dodd's practice.

Dr. J. E. Amiss,

Who was separated from the Service last Fall, has located at Altavista, where he is on the staff of the Piedmont General Hospital.

Need for Medical Books in Manila.

One of the projects of the Academy-International of Medicine and Dentistry is to attempt to supply the destroyed medical library at the University of Manila with sufficient books to enable the school to operate. The Japanese destroyed the university and its library until almost no usable equipment remained. The Academy-International is, therefore, appealing to the medical profession to donate books that may be sent to Manila.

Our readers may give books, periodicals or cash. Those willing to contribute books should first write to Academy-International of Medicine, Liberty Building, Topeka, Kansas, giving the names, authors and edition numbers of the books that are available. In an effort to send only material that is critically needed and to avoid duplication, all gifts should be cleared before they are sent. The donor will then be instructed which of these books are desired. If cash is given, it will be used for needed textbooks and arrangements have been made with leading publishers to sell books for this purpose at cost. Checks should be made payable to Manila Library Fund, A-.I.M.

Dr. Joseph E. Cox Honored.

Dr. Joseph E. Cox of Waynesboro, former Colonel in the Medical Corps with the 114th Station Hospital, was on March the 11th presented with the Legion of Merit medal "for exceptionally meritori-

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ous conduct in the performance of outstanding services in North Africa and Italy from 1 December 1943 to 8 May 1945". The ceremonies were held at Fishburne Military Academy, Waynesboro, where Dr. Cox was former instructor in sciences and later commandant of cadets before entering the University of Virginia, Department of Medicine, from which he graduated in 1934.

Dr. Homer E. Ferguson

Recently returned to Richmond, after taking special work in gynecology and endocrinology at New York Post-Graduate Medical School and Lahey Clinic in Boston. He has offices at 7 North Monroe Street where he limits his work to these specialities.

Annual Spring Clinic.

The Norfolk County Medical Society will hold its Annual Spring Clinic, its first after cessation of war, the latter part of May (date to be announced in next issue of the MONTHLY). There will be a program in the morning, followed by luncheon at the Norfolk General Hospital, and the afternoon session will be at the new DePaul Hospital, followed by dinner.

All physicians in Eastern Virginia and North Carolina are invited.

Married.

Dr. Allan B. Warren and Miss Wyclif Scott, both of Orange, March 2nd. Dr. Warren is a graduate of the University of Virginia, class of 1941. They will make their home in Charlottesville.

Lt. (jg) William Joseph Frohbose, MC., USNR., Plainfield, N. J., and Miss Elizabeth Montgomery Blair, Richmond, March 16th. He is a graduate of the Medical College of Virginia, class of March 1943. They will make their home in Williamsburg.

Lt. (jg) Robert Steele Hutcheson, MC., USNR., Lexington, and Miss Mary Louise Moffett, Charlottesville, March 1st. He received his medical degree from the University of Virginia, class of December 1943.

Dr. Peter A. Wallenborn, Jr., Charlottesville, and Miss Dolly Virginia Franklin, Concord, March 2nd. He is a graduate in medicine of the University of Virginia in 1944.

Physician Wanted—

Apply Mrs. A. M. Burfoot, Fentress, Virginia, for office space and equipment. Location about fifteen miles from Norfolk. Physician will replace three deceased physicians in community. (*Adv.*)

Dr. Henry M. Snead,

Petersburg, has been appointed City Coroner succeeding Dr. W. L. Barnes, resigned.

For Sale—

B & L Colorimeter; GE TRUVISION Stereoscope. Both in good condition. Address P. O. Box 1172, Radford, Va. (*Adv.*)

Wanted—

Laboratory technician, registered. preferably one familiar with x-ray, for a 50-bed hospital in northern Virginia. Salary or salary and maintenance. Apply "Laboratory Technician", care the MONTHLY. (*Adv.*)

Established Hospital for Lease.

A Sanatorium for nervous, mental, alcoholic and drug cases, doing an excellent business, to a reputable physician or medical group. Dr. E. W. Stokes, 923 Cherokee Road, Louisville 4, Kentucky. (*Adv.*)

Location for Physician.

I have been practicing medicine in Franklin, Virginia, for 34 years and at no time during that period has there been a greater need for medical service than now. A wonderful opportunity for a capable young man to build up a good practice and to do a good service to the community. Anyone interested may write to the City Manager, Mayor of Franklin, President of Camp Mfg. Co., Inc., the President of the Junior Chamber of Commerce, or to Dr. J. C. Rawls, Franklin, Va. (*Adv.*)

Pathologist, Board Diplomate,

Competent and experienced in pathologic anatomy, frozen section diagnosis, clinical pathology and tropical diseases; Laboratory director and research associate in distinguished organization; Professor, consultant and executive; numerous publications, excellent references. Age 40. Address "Pathologist", care this journal, 1200 East Clay Street, Richmond. (*Adv.*)

Geriatrics

Made its initial appearance in March and gives promise of a great future as it should fill a need of general practitioners and specialists alike. It will be issued bi-monthly from 84 South Tenth Street, Minneapolis 2, Minnesota, under the editorship of Dr. A. E. Hedback with the assistance of a board of well known physicians. It will sell for three dollars a year.

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Obituaries

Dr. John James Board,

One of the older members of the Medical Society of Virginia, died at the home of his son in Rustburg, December the 30th, 1945. He was born in Bedford County in June 1859. After teaching for several years, he took up the study of medicine at Jefferson Medical College, Philadelphia, from which he graduated in 1880. With the exception of a few years in Big Stone Gap, he practiced in Campbell County until his retirement from practice several years ago. He is survived by his wife and three children.

Capt. Max Leonard Holland, M.C.,

Roanoke, died in Fort Benning, Ga., November the 9th, 1945, death being due to bronchopneumonia. He was thirty-seven years of age and a graduate of the Medical College of Virginia in 1935. He interned at the Baroness Erlanger Hospital in Chattanooga, Tenn., and the Toledo (Ohio) Hospital, after which he served a residency at Gill Memorial Hospital in Roanoke. He entered service in the Army of the United States in July 1942.

Dr. William Isaac Robey,

Of Herndon, died in Washington, D. C., October 5, at the age of 67. He was a graduate from the George Washington University School of Medicine in Washington in 1902 and had been a member of the Medical Society of Virginia for a number of years.

Dr. Robert Pinckney Fagge,

Perhaps the oldest practicing physician in Virginia, died unexpectedly at his home in Axton on March 19th. He was ninety years of age and was "still at work" when he died. For the past several weeks Dr. Fagge had not been able to call on his patients but during that time many had been brought to his office. He had practiced for over fifty-six years in Henry County during which time he was also a community leader, an early advocate of good roads, and a sound public education program for rural children. Dr. Fagge was a member of the Medical Society of Virginia. His wife, two daughters and a son survive him.

Dr. Robert McCheyne Glass,

Prominent Winchester physician, died March 18th from a heart attack while attending a meeting. He was sixty-seven years of age and graduated in medicine from the University of Maryland in 1901. Dr. Glass was formerly a member of the Medical Society of Virginia. His wife and two children survive him.

Dr. Thomas McMurray Armistead, Jr.,

Lynchburg, died following injuries received when he slipped while walking in a corridor of the State Colony Hospital on March 1st. He was thirty years of age and received his medical degree from the University of Virginia in 1940. Dr. Armistead joined the Colony staff in 1943. His mother survives him.

Resolutions on Dr. DeJarnette.

Dr. Henry Magruder DeJarnette died in Fredericksburg, Virginia, on February 15, 1946, from coronary thrombosis, at the age of seventy-two years. He had been in poor health for sometime but he continued at work until the day of his death.

Dr. DeJarnette graduated at the University College of Medicine, Richmond, Virginia, in 1897. After a few years of general practice, he studied in New York and took up the specialty of eye, ear, nose, and throat in Fredericksburg, where he practiced for forty years.

He was a member of the Mary Washington Hospital Staff, the Fredericksburg Medical Society, and the Medical Society of Virginia.

The Fredericksburg Medical Society at its meeting on March 11, 1945, adopted the following resolution:

BE IT RESOLVED that in the death of Dr. DeJarnette this Society and community have lost a most skillful and successful doctor and friend, who administered to all who sought his aid, regardless of color or ability to pay.

IT IS FURTHER RESOLVED that a copy of these resolutions be published in the local paper and in the VIRGINIA MEDICAL MONTHLY, and that a copy be sent to his family, and also spread on the minutes of this Society.

N. TALLEY BALLOU, JR.,
G. BLIGHT HARRISON,
T. W. DEW, *Chairman.*